A profitable booke

declaring dyuers approoued re-
medies, to take out ſpotts and ſtaines,
in Silkes, Veluets, Linnen, and
Wollen Clothes.

With diuers colours how to die Veluets
and Silkes, Lin nen and woollen Fuſtian
and Threade.

Alſo to dreſſe Leather, and to colour Felles.
How to Gild, Graue, Sowder, and Verniſhe,
And to harden and make ſoft
Yron and Steele.

Very neceſſarie for all men, ſpecially for thoſe
which hath or ſhall haue any doings therein: with
a perfect table hereunto, to find all things
readie, not the like reuealde in Eng-
liſhe heretofore.

TAKEN OVT OF DVTCHE,
and Engliſhed by L. M.

¶ *Imprinted at London by* Thomas
Purfoot, dwelling in the newe
Rents. 1596.

To make Cloth whiche hath loſt his colour, to returne vnto his firſt eſtate againe.

TAKE OF VNQVENched lyme two ounces, of Oake aſhes two ounces, of cleare water 2 pound. Then meddle them wel al together, and ſo let them reſt one quarter of an houre, and then doe clarifie that water, and therewith waſh your cloth, & it wil returne vnto his firſt colour and waxe faire againe as before.

¶To waſh a ſcarlet which is greaſie.

Take of white tartar well and finely beaten, foure ounces: then boyle it in two pounde of fayre water, till the thyrd parte bee conſumed: then take it from the fyre, and let it coole, and then ſtraine it through a linnen cloth, and when you will vſe therof, make it then milke warme, and waſh therewith your cloth. Then hang it to dry, and you ſhall ſee it fayre, and returne to his firſt eſtate and colour againe.

¶To make all colours of ſilkes which be ſtainde, to come to their firſt colour againe.

Firſt take one ounce of vnquenched lyme, and of the aſhes of a vine one ounce, alſo of aſhes of an Oake one ounce and a halfe. Put all theſe into a baſen of cleare water, and meddle them all well togither, then heate them a little o-

uer the fyre, and when it is warme, take it of the fyre, and let it clarifie a while, so done, then take a sponge and wash your stainie spottes therewith, and see that yee weat no other place, but the spottie places onely, and so they will be well agayne.

¶To make a sope to take foorth greace or other spots, whatsoeuer they be.

Take one pound of roch Allum burned and made into a fine poulder. Also take of the rootes cald flames of Florence (so called in Dutch) halfe a pound: then beate it into a poulder. Then take a new layde egge, & of white sope two pound and a halfe, then blend your poulder, and your egge and sope altogeather well, and thereof make pellots or bals, and if one egge bee not suffitient, then take two, or so much as shall suffice, to make your sayd past withall, & when ye shall haue occasion to take foorth any spotte, take first of common water and wash your spotts on both sides withall warme, then take of the said pellots, and rubb all ouer the spottes in the cloth, so done: then washe out the filth with fayre cleare water and if there remayne some part and be not all cleane, wash it againe as afore is mentioned, till it be all cleane, and so shal yee haue it as fayre as before.

¶Another good way to take foorth spottes of greace out of anye woollen or linnen.

Take first a little fayre water, all to weate and rubbe therewith the said greacie spottes. Then take a quantitye of walkers claye, called Fullars earth, and rubbe a little therewith your spottes all ouer. Then rubbe and chafe your

your cloth one vppon another, so done, take a siluer spoone or such like thing, and scrape out the sayde filthie water and greace, and if then it bee not all cleane foorthe, doe so agayne as before is mentioned, and then take a little warme water, and all to weate the sayd place therwith, so done. Then wring and scrape it foorth as the other afore. Being then cleane, let it be dyyed and it will be well.

¶To take away all spottes on coloured Clothes, be they linnen or woollen.

If there chaunce by fortune, to fall a dyroppe of ynke, or any other staine, vppon any cloth dyed or coloured, or being cleane white, woolled or linnen. Ye shall doe as hereafter followeth, that is: take of the iuyce of rawe Lemmons, or the iuyce of a great Orange Apple, which hath a hard pill or skinne, which the Italion call Pommes Dadam. Or if ye will take onely the egar or sharpe iuyce which is in the pouncitron, and strayne it foorth thereof, and with the iuyce yee shall all to rubbe and chafe the sayde spottye places, and then wash it with luke warme water, and so then scrape out all the filthe thereof, with some spoone as afore sayde, or wring it cleane foorth with your handes. If at the Firste tyme paraduenture it bee not cleane, vse it likewise agayne the Seconde time, as before, and so your clothe will come vnto as good estate as it was at the firste, nor this shall not hurte any colour thereof.

¶Another good way to make cleane spotts of greace, out of all Woollen clothes.

Take an hearb called wood sorrel, or stubwort which is greene, & growethin woods, in bushes, stubs of olde trees,

and hath three small leaues lyke a hart, it tasteth sharpe like other sorrell. Which hearbe ye shall distill in a lymbec, and so reserue the distild water in a glasse very close, and when you neede to take foorth any spotte of greace, then take of the distilled water, and rubbe therewith all ouer the sayd spottes. Then chafe your cloth one vppon another: so done, take a spoone, or some other lyke thing, & take away the saide filthie water therewith. Then if it be not al cleane, do it likewise againe as before, with the distilled water warmed, and then ye shall see it will do wel, and shew fayre and cleare as it was at the first.

Another good way to take out spotts out of clothes with a lye.

Take three pintes of water, and put therein halfe a pound of pot ashes, and stirre it well altogether. Let it so stand the space of foure dayes, but ye must in euery day stirre it three or foure times. So doone, poure foorth the cleare water from the ashes, and put of galles therein, then it will war a greene: but if you will haue it a black, then put a little soote to soake in fayre water, and put that blacke water therein. With this warmed, ye maie wash your spottie places in any place of your clothes, and it will take it footh fayre and cleane.

To perfume clothes.

Take a viall of Rose-water, in the which ye shall put eyghteene or twentie graynes of Muske, and Ciuet, with a little of Ambergreace, then set all on the fier, and when it begins to ware warme, take it from the fier, and let it coole, and stoppe it close the space of two dayes, and when yee will perfume your clothes therewith. Set it on the fyre agayne, and being warme, holde your Clothes ouer it,

it, and so shall receiue the fume.

To take out spottes out of gownes and Clothes.

Take the rootes of Limonion, cald in Latin, in English I take it to be the wild Bete. Take the rootes, and seeth them in water, and with the same water, wash the spotty places in your gownes or other garments, and it will bee cleane.

To make a sope to take out spottes of oyle and of greace.

Take of good scowring sope, and mixe it finely with the sifted ashes of a vyne, of eche of like portion, then put thereunto a quantitie of the powder of burnt Allum, and also of the lyes of wine, beaten into a fine poulder, and put it thereunto, then mixe and incorporate all these well together, then make thereof square brickes, or rounde bals, and when you shall haue neede to occuppe thereof, then take of warme water, and rubbe and chafe all ouer your spottye places, and then rubbe thereon with your sope ball, if then it bee not all cleane, then must yee take your warme water agayne, and rubbe and chafe it, as yee did before, and then your sope, and so at length ye shal haue it cleane foorth.

A very good way to take out spotts of oyle out of clothes.

First ye shall take of the oyle of tartar, and rubb therewith on the spotty places, and then scrape it away incontinent againe, then ye shall wash it well with luke warme water, and three or foure times with colde water, so then

wring it foorth, and see if all the spots bee cleane out, if not, wash it agayne, so long as you did before, and so the cloth shall bee as fayre as it was when it was new, so before any spots came on it. Their is also another waye, for to take foorth spots with this oyle of Tartar, but because I haue not the true knowledge thereof, I will not heere expresse it.

¶A sope water to take out all spots.

Also, some doe vse to take the water wherein strawberries hath beene sodde, and with that water ye shall weate and soake the spottye places, then take fayre water, and wash out all the filth thereof, so doone: take and hang it in the sunne to dryye, and it will bee so cleane as before it was.

A way to take out yron moles, out of all linnen cloth.

Take and wring foorth so much of the iuyce of the sowrest Orange, or Lemmon that ye can get, then take of the same iuyce, and rubbe the place of the yron mole therwith so let it dryye, and euer as it dryyeth in, rubbe it ouer agayn, thus doe often, and euer as you haue weat it, let it rest and dryye in the sunne, and at length yee shall see it will bee all foorth and cleane.

A way to take out spots in scarlet of veluet of what colour or sort soeuer it bee, not chaunging the colours.

Take a hearbe (called of the surgions) Saponaria, In frenche called Foullons, in English Sopewort, heat them oft, and take out the iuyce, and put thereof on the spottes, then

then let it so rest the space of one houre if it be in sommer, but if it bee in winter let it rest foure houres, then washe those spotty places with fayre cleane water, so shall it be cleane to seeme too, but put once againe the sayde iuyce thereon. Also if the scarlet be not dyde in the cleare grain then may yee put thervnto halfe of black sope, with so much of the sayde iuyce, so mingle it together, and then frote it thereon, then let it be washte in luke warme water, and then ye shall see the spotts cleane forth. For this way is prooued by experience to be true.

Another way to take out yron moles out of linnen.

Make a chafer seeth full of water, then take your cloth and wet it with the iuyce of Limons, or sower Oranges, or crabbes, or sower wildinges, and then holde it harde to the side of the chafer, and euer as it dryeth in, weat it still agayne, till ye see the moll go forth: for all these thinges aforesayd are good, but the iuyce of Limons and Orenges are the best. So euer as ye haue weate your spottes with the sayd iuyce, holde it then hard vnto the syde of the chafer, as is aforesayd, thus doe vntill it weare away, for this way hath been proued true often. Or take the boyling iuyce of Sorrell, and lay it therein, and rubbe it with the backe of a spoone till it be out.

How to take out oylie spottes out of parchment or writing paper.

Take a mutton bone and burne it to poulder, then let it be fyne beaten, then put of this poulder on both sydes of your spots, and let it be prest betweene two hard boordes, the space of two dayes, then take it out, and ye shall see the oyle to be cleane gone, be it eyther parchment or paper.

Another way to take out ſpottes of paper.

Ye ſhall take off the water willow boughes, and make aſhes therof, or aſhes of the buds of the vine, with ẏ huſks of greene beanes, ſteepe them in water a day and a night, then put of the ſame water on the ſpots, then preſſe it, and let it ſo remayne for a daye and a nighte, or as ye ſhall ſee cauſe, and yee ſhall ſee it will doe well.

A very good way to take out ſpottes of clothes.

Take of the rootes of the hearbe called Gentian, in engliſh brome, take and burne of it and make aſhes thereon, and with the aſhes make a lie, and with the ſaid lie ye ſhal waſh your ſpotty clothes, and in a ſhort ſpace it will take away all the ſpots therof. Well proued.

A good way to take out ſpottes out of woollen.

Take aſhe water, and the powder of Allum together, then take of the aſhes thereof, and lay it vpon the ſpottye places on the cloth, and when it is drie: doe ſponge it off, and ye ſhall ſee it cleane.

Another againſt ſtaines in linnen cloth.

Firſte take your cloth and rubbe it well all ouer with baye ſalte, then take an Orange and cutte it in two, and wring the iuyce thereon, and laye the ſaid Orange vpon the ſpottes alſo: and ſo let it reſt an hower or two, then

then lay them in abucke and wash them, and they will be fayre and cleane. Or elle ye may lay thereon the iuice of sorrell and salte, and so put them into the buck as is afore sayd.

¶A way to keepe silke from staynning in the washing.

Take fayre water and seeth it, and being all seething hote, put therunto of sope and let it so melt therin, then take it from the fyre, and let it coole til it be almost colde, and then at your pleasure yee may washe therewith your clothes, and it will scoure well, and not stayne your silke, and after ye haue washt them, doe not let them lye weate long together, but lay drye clothes betweene, or elle they be in daunger to stayne: and this way you may saue both Sylke and Golde withoute chaunging of theyr colour.

¶Another verye good way to keepe Golde from stayning.

Firste take your Golde and annoynte it all ouer with good Honye, then sette it in the Sunne, and lette it reste the space of halfe an houre, and nowe and then lette it bee turned in the Sunne. Then after take and washe it in the forelayd sopie water, and this way it shall neuer chaunge nor stayne, but keepe colour long.

¶Howe to bucke linnen clothes, and to scoure out all spottes of greace.

Firste yee shall laye all your foule clothes to soke

in colde water, then dryue them as yee doe a bucke of clothes, and when they are well dryuen: then shall yee take them all forth of the bucking tubbe, then laye them agayne abroade in the sayde tubbe, without any lye, and euer as ye lay them betwirt euery cloth: scrape of chalke thinne all ouer, thus when ye haue all layde them: then put of your lye vnto them, and so chaunge your lye twise or thrise after, then take and wash them forth, and they will be fayre and cleane without greace and very white withall.

¶A good way to keepe linnen fayre 20 yeares without remouing, and will not waxe moulye nor rotte.

Fyrst take your linnen in marche (so much as you intend to keepe vnremoued) and washe them, and then dryye them fayre agayne. So laye them vp in your cheastes vntill May next following: then shall ye take them oute and wash them agayne, when ye haue so washte them, looke that ye doe then dryye them thoroughly and well, and then folde them fayre vp, and lay them in your chestes or presse, and yee shall not neede for to remoove them in twentye yeares after, yet they shall continue dryye and well.

How to sponge woollen clothes.

Take a quarte of fayre water, and let be heat luke warme on the fyre, then take a quantitie of walkers clay and al to crush it therin, then let it stand vntil it be cleare, then poure that water into another potte, and set it on the fyre againe, till it begin to seethe: then take of Uenice sope, or other good sope, and put thereof into the sayd water, in sterring it well all aboute, then take it of the fyre

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and all hote, ſponge or occupye therewith at your pleaſure, in making it alwayes warme, euer when yee will occupye thereof.

How to make crane colour Fuſtian to be as fayre canuas as at the firſt.

Firſt for the proofe thereof, take a peece of crane coleur Fuſtian, and take alſo as much of the iuyce of Orenges, or Limons as will weat the ſayd peece thorowe, then let it reſt and dye in, and the ſayd Fuſtian wil be as faire canuas as it was before it was coloured, thus if yee can get ſo much iuyce of Oranges, or Limons, for to ſerue your purpoſe, yee maye returne the colour againe, what quantitie yee ſhall thinke good, for this hath been well proued.

Thinges to keepe moughths from clothes, very good in ſommer and other times.

The flying moughths will bee in the beginning of June, and continue till Auguſt, but they are chiefly from mid July to mid Auguſt. The running mougth hee will continue in your cheaſts all the yeare long, winter and ſommer, whiche are greate ſpoylers of geare and other thinges. For the flying moughth. Take the powder made of drye Orange Pilles, and the powder of Elecompane rootes mixt together, and ſo caſt it among your clothes, alſo perfume in a chafingdiſh of coles your clothes therewith. Thus you may vſe quarterly, and it will ſaue them. Or ye may take the powder of Arras, with the powder of Ginoper, alſo the powder of Sitrinum, caſt among cloths ſaues them from moughths. Wormewood or Lauendar ſmall preuaileth. Some vſeth oyle of ſpyke to annoynte their cheaſts, and hang it in bladders therein. Some laies

the hearbe called Flewort, in Latin pulicaris, which if ye lay it in your chamber, no flea will breede, some take brimstone, and perfumes therewith, but for the running mougth I know nothing but strong perfuming, and remooving your geare.

A way for to take out spottes of wollen clothes.

Take and seeth of common ashes in fayre water, and the pouder of Allum together, and then take of the saide ashes and lay therof on the spots and so rubbe it in, then let it drye, and when it is thorowly dryde, then take a sponge and sponge it away, as it is declared of the other afore.

¶A good way to helpe all staynes in thinne silkes and woollen clothe.

Take of good strong vineger, and make it luke warme, then dip a black cloth therein, and then rubbe therewith your stainy spots al ouer: so done, then take away so much of the sayd fylth as ye can with a spoone, as for the reste, ye must haue all ready a tailors yron hote, and lay a peece of blacke cloth on the spottes betwirte the yron and the cloth, and so drie out all the rest of the said filth with the hote yron, and then yee shall see it will doe well and bee fayre.

A pleasaunt water to preserue linnen, or any other thing, yielding a pleasaunt sauour a long time after.

Take 2. pound of spike flowers, as much of rose leaues, one pound of cost mary, with halfe a pound of marioram,

as

as much of Balnea, two great handfull of Organy or peniryall, foure ounces of mace, a quarter of a pound of Arras poulder. let all these well soke together in red wyne, then put it all into a pot close stopte that the ayre doe not passe. Let it stande so the space of foure and Twentye houres, then let it bee put into a distillitorie, and see that it bee well stopte (rounde aboute) with flowre, egges, and water, mixte well together, and see that no ayre do come nor go oute, but at the spoute onely. Uppon the end thereof, yee shall hang a fine linnen cloth with a grayne of muske or Ambergreace within it, vppon the which yee shall alwayes let the spoute droppe on, and yee shall see it will bee a pure water for that purpose, ye shal also take to the distilling of the foresaide thinges, halfe a pounde of bay leaues, so shall this water bee good for the purpose as is afore mentioned.

A good way to washe a shirte, and saue the Golde or Silke thereon, from staining.

Take a newe shirte fyrste of all afore it bee euer weat, and laye the coller and ruffes or silke in pisse somewhat warme halfe an houre space, then take it forth, and then washe him in hote scalding licar, or seeth him, and it shall neuer stayne the silke. If ye haue not pisse, ye maye take groundes of strong beere or ale, and let the silke lye therein, the night before ye doe wash it. And this hath been oft prooued very true. But alwayes ye must foresee, that yee hang not your clothes in the hote sunne, after they be washte, but laye another cloth thereon betwixte the Sunne and it, or else the Sunne wyll chaunge both Golde, Siluer, and Silke. Therefore it is better

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to hang them in some place of shade after their washing, if ye can. Also to sope your water to much, or your clothes is an occasion to staine both golde and silkes. A very good way is: first to melt your sope in the lycour, and then let it coole, and so to wash your clothes therein.

Agaynst clothes staynde with wine or viniger.

Take of warme Cow milke and wash your cloth therin, or wash it in whay & salt, other else as soone as your clothes are so staynde by mischaunce of wine or other thinges, doe cast of salte thereon incontinent, so then it will preserue it from stayning, whether it bee wollen or linnen.

A very good way to take forth waxe ot rosin dropt on silke, wollen or linnen.

Whereas ye shall haue any such occasion to take forth ware or Rosin dropt on any silkes, or other clothes. First ye shall make a pressing yron hote, or some siluer spoone, with a coole of fyre therein, take eyther of them when they be hote, and first whereas any Rosin or ware is dropt, yee shall first rubbe on the syde droppes of ware or rosin all ouer: with the end of a tallow candle, then take either your yron or spoone aforesayd, and holde it thereon, laying a peece of browne paper betwirte your yron and your war, then after yee haue a little so touched it with the heate, (the ware and tallow will mingle together, and soke into the broune paper) then take it off, and annoynt it with the sayd tallow agayne, and then holde your hote yron, or spoone, as before, and thus ye must doe, as often as ye shal see cause, vntill it be all cleane forth. If the ware be dropt thorow on both sides, vse the one side like the other, and so

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yee shall get it cleane: and looke euer that ye shift youre browne paper to a cleaner place, from the place it was before touched with ware, and this ouer keeping, it shall be all well and cleane. Often proued.

A sope to take out all spottes in woollen cloth.

Take of Uenice sope a quarter of a pound, the yolkes of three egges, of salt finely beaten halfe a spoonefull, of the iuyce of betes, halfe a spoonefull, or as much as will make it thick like a paste, then make them into prety balles, and let them drye out of the heate of the sunne, in some shadow place, and whensoeuer ye will occupy thereof, first wet your spots therowe with fayre cleare water, and then take your ball and rubbe it thereon, and wash it then clean forth as is afore mentioned of the other, thus doe, and yee shall see that they shall be clean forth, as before.

Another for the same.

Fyrste yee shall take of white sope halfe a pounde, and shread it very small, then take of the gall of an oxe, or of a hee Goate, with some Allum, of eyther of them an ounce, take the yolkes of two egges, with a quantitie of fine sifted ashes, put them altogether in a morter, and beat them, and when they be well mixt, make them into balles, and whensoeuer ye shall neede thereof, take of fayre warme water, and rubbe the place all ouer therwith, and then strike with your ball thereon, and then shall yee rubbe cloth vpon cloth, and washe it then forth, as afore sayde, and it will be cleane.

Another way good to helpe spottes or staynes.

Ye shall first take halfe a gallon of Ure, the older the better, of fenygreke made in fyne poulder halfe a pounde, a quarter of a pounde of white sope, a gallon of strong common lye, mixe altogether therein, and set them on the fyre, and seeth them softly till they be halfe wasted, and whensoeuer ye will occuppye thereof, heate it warme, and wash your spottes therewith, in mixing it often with faire colde water, and it shall doe well.

How to take out spots of white silkes, or other colours.

Take of the best and strongest Aquavite, three pintes, with the which you shall wete your spottes, & take a newe layde egge and beate it, and rub thereon your saide spots, and so set it in the sonne and let it dryye in, this doue, washe it then with a fresh and cleare water, and then wring or presse the said water forth, or presse it betwirt your hands, and so they shall be cleane, as for cloth in grayne, ye maye wash the spots well with Allum water, then rubbe cloth vnto cloth, and so wash it forth with cleare water againe, and it will be well. If it be not at the first all cleane oute: doe so likewise againe, so long as ye shall see cause of any spots remayne, and so they shall be well.

A proued way how to take out oylie spottes out of cloth.

Take of the oyle of Tartar, so much as will couer your other staynes, and put it thereon, and straighte way take it off againe, and washe it then well with fayre warme

wa-

water. Then take cold water also and wash it iii. or foure times ouer, after that, in chaunging it still with new water, this done, you shall see it will be as fayre as the rest, and as it was before.

Another way to take out all waxe, Rosin or pitche, on Silkes or other clothes.

First take of tallow or other greace (be it salt or fresh) and melte it, and being seething hote, put thereof on your sayd spottes of ware, Rosine, or Pitthe, then take of hote licor, and hold your sayd spottes therein, & then rub cloth vpon cloth, betwixt your hands. So done, then wring forth the sayd greasie water, and if ye then see it will not be al cleane forth, serue it so againe, annoynting youre sayde spottes with tallowe or greace, and then doe cleanse foorth the greye water as afore is mencioned. For this waye hath bene well and often proued, and doeth healpe

¶ To take foorth greace out of Silke, Veluet, Moccado or others.

Take and heate water and put a hanful of cleane feathers therin, & then let it coole tel ye may suffer your hand therin, & lay your silke abroad, and take your feathers and rub al ouer the spot, then rub therouer with Castile sope, and then with your feathers again al vp & down, weting them twise or thrise, & so rub it vp & downe, then wring it a little and dry it in the sunne or wind: but if it be Veluet, after ye haue so rubbe it: the veluet will lye, then must ye take cloth of woollen, & heat it, then annoynt it light ouer with butter, & chafe your cloth together, to rub in y butter, then heat it a little, & rub your veluet vp & down therwith, & it will then rise again, & be as fayre as before.

To take out spottes of cloth.

They take the straight bones in sheepes feete that are sodde, and drye them and make them into poulder, with the which you shall lay on the spotted cloth, layd in the Sunne, and rubbe this poulder thereon till it goe all foorth.

To dye wooll red.

Ye shall put too foure pound of woollen yearne, tenne ounces of Allum, and seeth it with branne water so much as yee shall thinke good, then take your yearne oute, and put that water out of that kettle, and put therin agayne three partes of fresh branne water, and one parte of fayre cleare water, then warme it a little on the fire, then put therin two pound of grening weede, and let it so warme a while, then put therin your wooll, and styr it well with a sticke the space of three howers, but let it not seeth in any wise, so done, then take out your wooll agayne, and put it agayne into youre kettle, and put thereto halfe a glasse full of vnsleakte lime, with as much of common ashes, and thereto put your wooll agayne, and styrre it with a staffe fire or seuen Paternoster whiles, then take foorth youre wooll, and yee shall haue a fayre collour. But if yee will haue it yet a more sanguine coloure, then must you putte into your kettle halfe a little glasse full of more lime, and a litt lglaske full of common ashes, and thereto put youre wooll agayne, and stirre it well still foure or fyue Paternoster whyles, then take forth your wooll and wash it, and so yee shall haue a very fayre colour.

Another way to make wooll a fayre red,

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When as your wooll is made red after the first maner then shall ye cast away that licour that is in the kettle, and put into it fayre water, and put thereto the cruse full of fayre made lye of common ashes, and therein put also an ounce of Allum, then as soone as it beginneth to seeth put therin your wooll, and styrre it well therin foure or fiue paternoster whiles, then take it foorth and washe it, and so ye shall haue your wooll a fayre color. This maner of dying is after the order of Dornoke in Flaunders.

To dye a fayre yealowe.

If yee will dye yealow with woad, take off the woad leaues, and cut off the rootes, then cut them in peces, and lay them to soke in lye of common ashes three hours, then seeth it a quarter of an hower, til yee thinke it be meetely well sodde. Then put therein two quartes of water, and as much stale Urine of sixe dayes old at the least, so let them seeth together a little, then cleanse it thorow a siue, and then put vnto the same agayne, of lye and Urine as aforesayd. Then straine it thorow a fayre cloth and seeth it, and to two pounde of woad take two pounde of Uerdegreace, with the lye that yee haue sod, your woad and all, putting them in your sayd collour, which must be medled and will stirred all together. Then shall yee boyle it all a little, and it shall bee well.

Another colour to dye a yealow with woad.

Take and set a pot with water on the fire, and make it warme, then take ashes made of Oken woode, and cast therof into the pot with water, and being warme, take it from the fier, and stirre it well. Then couer it close til the

nert daye. Then poore the clearest lye thereof thorowe a clothe softly into another vessell or pan, then take of good wood, and breake the rootes off, and then cut them small, then wash & rince them in cold water, & then put them into the lie, and there let them soke a night, then take & seeth it, till the halfe be consumed, and when it is well sod, then all hote clense it thorow a fayre cloth, then must ye haue of verdegreace well & finely beaten into pouder, and blend thereof with a spoone amongst your other stuffe, this must be done incontinent therevpon, and also your lye thervnto must be very strong made.

How to dye linnen or thread red.

As when ye will dye anye Linnen or threade red, yee shal take one pound of samfleure, and let it soke halfe a day and a nighte in water milke warme, then put it into a thicke bagge or sacke, and therein washe and rynce it in the riuer till the bagge bee therewith red, then wring the water well forth, and so take oute your Samfloure, and spread it vppon a fayre boorde or Table and make (as it were) a little thinne bedde therof, then strewe thereon of white ashes, in making beddes of poure Samfleure, and when ye haue strewde them with ashes, ye shall take to one pounde of Samfleure, a quarter of a pound of ashes, which ashes must be burnt and made of the lyes of white Wine, and it must be well chafte betwitte your handes, the one against the other, then make thereof a small heape, and so let it rest the space of fyue houres. Then shall ye rubbe it agayne till it ware warme, then haue ready a fayre bason, and sette it vnder your stuffe, that it may runne therin, and also wring out the iuyce therof into the sayd Bason. Then cast therein a pynte of wine vyneger that is very good, then yee maye putte therin a pounde of yearne, and it shall doe well. But

to dye your Linnen cloth, yee shall put it in before youre yearne or Fustian. Then lay it therein day and a night, then take forth your linnen or yearne, and then put therein a gallon of ashes of the Ashe tre, and there vnto youre linnen, yearne, or fustian, and so let it lye therein halfe an houre, then take it oute and wring it as well as you can, then by and by hang it in the sunne, then take that water that ye soked first your Samfleure in, and straine it (as afforesayd) into the bason vnto the other colour, then put therein a glasse full of Vineger, and then you maye putte therein your yearne, fustian, or linnen cloth, and doe there vnto as is afforesayd,

Another way to dye Linnen in a fayre rose redde colour.

To dye a fayre redde rose colour of Linnen, yee shall take to euery iiii. yardes and a halfe of Linnen, halfe a li. of good gall nots, and seeth them in fayre water al whole, the space of ii houres, then take it from the fyre, & poure that water into another vessell or fatte, then put your linnen into the sayd water, and let it soke therin the space of foure houres, then take it forth and wring the lycoure well forth. Then take faire water in a kettle, and set it on the fyre, and put therein a quarter of a pounde of Allum: and when it is readye to seeth, take it from the fyre, and put youre cloth therin as soone as yee haue wrong and strainde oute your gals afforesayde, but lette it dyye a night before firste, and then turne it well therein the space of a quarter of an houre. So take it forth and wring it well & then seeth two ounces of Brasill in fayre water, the space of two houres, then take that from ỳ fire, and hang another kettle ouer the fire, and putte therein grupys water, so warme it a little, and cast therein two li. of grening wede, then put your linnen cloth therin, and

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looke that no Allom haue been in that water. Then let it lye therin halfe an houre, and styre it well with a staffe, and then take out thereof the said linnen, ye may then cast away the same liquor, and wash your kettle cleane, and put therein of the cleareſt brasill water, and let it well colour therein, Then take your Linnen and wash it well in fayre water, then take of fayre water in a panne, with a little Allum and so seeth them both together: and therin seeth your Linnen cloth fiue or sixe paternoster whiles. Then take out the said cloth and wring it well, and after that put the sayd cloth into the kettle of brasill water, and therin ye shal turne and wind it well, the space of a quarter of an houre, then take it forth and wring it a little, and likewise you shall doe with the dying of the Fuſtian, but vnto your Fuſtian you muſt haue two partes more of Verdigreace and Allum, and that your Fuſtian muſt lye therin half a day and a night, then wring it forth, and let it dry e, then after yee maye rayse his cotton with cardes meete for that purpose, if yee wil haue your Linnen more fayrer, cast in the kettle with your sayd brasill, some lye made of white Lime, then put your cloth therin, then turne and wind it therin the space of foure pater nosters, and then take it forth therof and wring it well, and so hang it vp to dry.

How to make your branne water, wherewithall you shall vse to dye red.

Ye shal take a hat full of wheate branne, and take so much water as will go into the smal kettles, so let it haue a welling or two on the fire. Then poure it into a fatte, then take two other kettle fuls of water and warme it, and put it therin also, but first stirre it wel, and so couer it well. The first day you muſt stirre it often, and then it will be the better, then shall yee let it stand foure or fiue

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dayes till it ware the riper, and which will be the better for your purpose, and then ye may occuppe as you shal see cause.

For an yron moll in Linnen.

To take forth any yron moll in linnen cloth, take a chafing dish with coles, then couer the coles with a pewter dish, so let it be hote. Then lay your linnen thereon where the moll is, and with a Limon, or an Orange, but the Limon is better, to rubbe your moll therewith, and still as it dryeth in, lay the iuyce thereon, and still rubbe it so, till it be all cleane, and this way will haue it all out. Oft prooued.

To dye silke quoyues in a red.

Ye shall first lay your silke in Allum water, and let it seeth therein, and with brasse water also halfe an houre long both together, then take a little grening weede, and the like of brasse water, and let it be made hote, and put the silke therein, but let it not seeth, but take it oute and rince it in lye, and then in water, and then it will be faire and well.

To dye silke in a sanguine colour.

Ye shall dye silke in a sanguine, as ye must in all sorts, take Allum as ye doe grening weede, then must yee take a little fayre water, with a little brasill, and seeth them together. Then take part thereof, and seeth the silke therin, and as that is taken out, so take an other, and then the thyrd tyme, then put it in lye, and so clense it, as is afore-sayde.

To dye Silke blue.

If ye will dye blue silke, that silke must then be white, which ye must first soke in water, and then wring it forth then ye shall put it in your blue dye, and there ye maye make it with a light colour or darke as ye please.

A faire greene to dye.

If ye will haue a fayre greene, take a little brasse water, and a little allum, and seeth them together, and when the Allum is molten, put your silke therein, and lette it seeth the fourth part of an houre. Then take again a litle brasse water, and a little wood, and put it therein also, till that it ware a fayre darke yealow. If ye will haue it more yealower, then put it in the blue dye, wherein yee may make it light or darke as ye please.

To dye blacke silke.

Take to one pound of silke, xii. gall nuts, and beate them to pouder, then seeth the silke with the galls in fayre water, a good halfe houre long, then take of the blacke dye, and therein seeth it another halfe houre, then take it forth and let it be colde, and then put it agayne into the blacke dye, and let it there seeth another halfe houre, if then it be not fayre: let it seeth therein so long till it ware a fayre black, then spong it in the water, and so let it drye.

A purple silke to dye.

When ye wil die a purple silke, ye shal take to one pound of silke, 4. ounces of Allum, and seeth the Allum in common water, & lay the silke therein, and let it so lye foure houres

houres. Then take to euery pound of silke, two pound of purple colour, & seeth it together as hereafter is written, which is, ye shal take halfe pisse, and half water together, & seeth it therein till it ware cleare & fayre, & then sponge it in fayre water. Also to eche pound of silke it behoueth to haue foure ounces of Allum. Also for red silke to dye with crap dye, so called in dutch, which ye shall dye with foure pound of Allum, and also ye shall dye sanguine silk with allum, and also yealow ye shall dye with allum.

To make a good blacke dye.

Take a pound of galls, and a fourth parte of coperas, and seeth these together, then put the cloth therein, and styre it wel about, then hang it to dry, then prepare your dye as thus, take a good great fat, and put therin a fourth part of Rye meale, and halfe so much of swarfe (of the grindstone) and so much of elder barke, and in like of olde yron, and the scales of yron, as it coms of by the hammer beating, styre this all well together, and so let it stand three dayes or euer ye put your cloth therein, and at eche time let your linnen drie afore ye put it therein.

To dye a greene.

Take a light blue colour and put it into Allum water two houres long, then hang it to the time, there as the winde may drie it, and then put it into the foresaid wood and so vse it as it is afore declared.

To dye a carnasion.

Take purper that is drye, and lay it to soke a night in pisse, then take your cloth that is allomde, and drye & put

it therein, but yee shall seeth the purper twise in fayre water, then set another fatte by the fyre, and let it seeth, and therein yee shall firste put your cloth, and then all weate, put it into your dye, til it be fayre ynough.

To make a red carnation.

To make a red carnation dye, ye must dye your white cloth, linnen or wollen, or silke yearne, to doe it well, yee shall gall and Allome it well. Ye must take an hearb called Foli in dutche, that shall ye finde by ditches & banks, take a pound thereof that is drie, this is in tuftes and it is hote like wee ashes, and carnation in sight, therwith men doe make a red carnation woollen cloth, with the green or white, or of silke, and if any carnation haue lost his colour, or if any carnation haue lost his dye, with that yee shall dye it agayne, that it shall not leese his colour, and to foure elles of cloth, ye shall take a pounde gruis, or of that hearbe afore named, which ye shall beate to pouder, Then shall yee take lye made of Oke ashes, mixe a parte therewith, and another part of cleare pisse cleare and old, of eche like much. If ye will haue a light dye, take pisse newe made, and of the foresayde lye, in like much & therwith ye shall dye, with the foresaid poulder put therein, & as it is sod, put in that which ye would dye, and seethe it two houres long, and then let it drye.

To dye linnen.

Ye shall firste take to one stone of flocks fiue pounde of sope ashes (which are called in Dutch Wee asseen) of the best, with sirteene gallons of water, seeth it together an houre long, and then let it cleare one nighte, then gentlye poure of the vppermost thereof, and seeth your flockes therein one houre long, and then proone if your flockes

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or silke be ynough sod, also take a little of your Flockes in your hande, and thrust it hard to a redde cloth, also put it in your mouth, and if it go by and by aparte like a rype apple, then it is ynough sod. Then spong it in faire water, & then put it in branne water, according to the quantitie of the woollen cloth, and seeth your Flockes therin, then take it out thereof, and take brasill and put it in water according to the quantitie of the linnen, that is to ech ell of cloth foure ounces of Brasill, and as the brasill hath sod a while, then straine the brasil throw a cloth, and put it agayne into your Kettle, and your Flocks also, and let them seeth, then take a Ladle full of lye and put it therin, thus shall ye make it as hye as you will, and if yee will haue it more higher, then put more lye therein, also for three pounde of Flockes, take foure ounces of Allum, and seeth them together, and if yee will seeth dyde Flockes, take lye of Sope ashes, as before it is written, which yee shall seeth with Sope ashes, then scoure it, and lette it drye.

To dye cloth with facet wood.

As ye will dye cloth with faucet Wood, ye must make your lye with sope ashes of Denmarke, and rayne water, which ye shall let stand three houres long, then seeth it, but the Woad must be first sod in the lye, and when it is sodde, let it be cooled with other colder and sharper lye, with the last lye ye shall put to one pounde of yearne, a great peece of Allum, and put it therin. Then shal ye put that dye into a fayre Kettle or fatte, then take two ounces of spanishe greene, which ye shal soke therin two or three houres long, then tosse and push it vp and downe twise or thrise, and wring it, and with colder lye put therein, and tosse it with a dish too and froe. Also another manner

is, take a diſhe full of vnſlect lime, and quench it with water, then take two diſhes full of wood aſhes, and mixe it with the chalke all together well, and thereof ye ſhall make a good ſtrong lye, and let it three or foure times run thorow the tubbe, then take the faucet woad, and hew or cut it in ſmall peeces, & caſt it into the lye, and let it ſeeth therein halfe an houre long. Then put therein ſope aſhes, and let it ſeeth another good halfe hower, then take it off, & put thereto ſpaniſh greene, & let it boile twiſe or thriſe, and then ſponge it, alſo with three pound of faucet woad, it behoueth to haue two ounces of ſpaniſh greene, & as the cloth haue bene in the firſt licor, if then it be too broune or to yealow, then put therto of wyne aſhes, & a little allum.

To dye woollen cloth ſanguine.

To dye woollen cloth fayre, ye ſhall firſt ſeeth good rye meale in fayre water, and then put it in a fayre tubbe or pan. Then caſt fayre water thereon, and let it ſo ſtand three days to cleare, then take of that water, & put therein two ounces of allum, to an elle of cloth, and let it ſeeth two houres long, then let it hang & coole without wringing. Then put that water forth of the veſſell with the meale, and put therein a pound of the beſt grening weed, and heate that alſo, but let it not ſeeth, then put your cloth therein, & tolle it wel with your hands without ſeething, and take it forth and put it in a panne with fayre lye, and let it lye therein, and ſo let it drye, and it will be a red. If yee will make fayrer, you muſt haue of braſill, take an ounce of Allum and allum it a foreſaide in another water, then ſeeth two ounces of allum with that braſill in branne water made, and as the braſill haue ſod a while therein, ſo put therein of cold water, then take ſo much thereof out as will weat your cloth in, and ſtyre it well therein, then ſhall ye take of other dye, vntil the time that

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it hath sufficient ynough, if yee will haue the same a sanguine, lay it in fayre lye of Sope ashes, and there it will haue a fayre sanguine dye.

To dye woollen yearne, or cloth.

To make this dye, put to foure pounde of woollen yarne, or cloth, two pounde of woad. Put this woad in a Kettle, and cast therein of fayre water, then cast agayne halfe a tin dishe full of ashes out of the fyre, and as soone as it seethes, put your woollen yarne therein, then let it seeth eyght or nyne pater nosters whiles long, then putte your yarne forth, and put a little water in, out of the kettle, and then a fewe ashes out of the harth, and put your woollen yarne agayne therein: and so let it seeth a good while, if it be a broune blue, it shall be a darke green and if it be white woollen yarne, so it shal be a yealow colour.

Agayne to dye woollen yearne.

As ye will dye woollen yearne that is greene, your yearne yee shall first seeth in branne water, which is to vnderstand, to foure pound of yarne, ten ounces of Allum, and let it seeth two houres, then wring that out, and put it in the dye thus made. To foure pounde of wooll yearne take tws pound of woad, and seeth the woad well with hearth ashes, in lye made a day before, so let it seethe the fourth part of an houre, then put the cleare into a cleane fatte or vessell, then take the fourth parte of an ounce of spanish greene, called Verdigreace, pouder it well & cast it therein, and stirre it with a sticke or staffe, then put in your yearne, so turne and tosse it therein the fourthe parte of an hower, and then let it dye. If it bee not fayre ynough, then put it in agayne, and doe as before,

also as ye would dye blue woollen yearne, yee shall put it first in warme water, then wring it forth and dye it blue, as is aforesayde.

To dye with brasill as red as a rose.

Take sixe elles of linnen, and thereto halfe a pound of beaten galles, of the best: then put it in fayre water, and let it seeth about two houres, but the galles shoulde rather be all whole, and when they are sodde, set it from the fyre, and put it gently in another Kettle or fatte, and then put your linnen therein, as hote as you maye handle it, and styrre it therein foure houres long, that done, then wring it well forth, and hang it to dyre. Then take foure ounces of Allum, and seeth it with water, and when it is sod, take it from the fyre, and put your galled cloth therein, as hote as ye may suffer it, the space of a quarter of an houre, then take your brasse water and put thereof in a Kettle, and as it is warme, put therein two pound of greening weede, let it the first time soke well therein, and let it be well and hote, but not seeth, and then put your cloth therein, and stirre and handle it well at the first with your handes, nye halfe an houre with a staffe tost well al about, and well handled in the dye, and then ye shall take youre cloth and sponge it in water and washe it cleane. Then take a little allum, and seeth it with water, then shall yee haue two ounces of brasill sodde in light water, and put your cloth therein fiue paternosters long. Then shall yee haue two ounces of brasill sodde in light water, and putte your cloth therein, then handle and styrre it well therein and stirre it well about the space of a quarter of an houre and wring it not to sore, then drie it. Then if it be not dry ynough, then weate it as before sayde.

How to make a greene water.

Take nie halfe an ounce of Uerdigreace, and cruſhe it well in a woodden diſhe, then put thereto the yolke of an egge and two blades of ſaffron, then take of the leaues of ſpurge, halfe a handfull, and beate them in a mozter, and thereto caſt a good glaſſefull of Uineger, and ſtrayne it thozow a cloth. Then take of this ſtuffe, and put therof in a diſhe with the Uerdigreace, and ſtirre it well together and make it thinne, that it may be the better to dye, oz to wozke with a penſill, oz as ye ſhall ſeeme beſt.

To dye fayre Linnen with braſill.

Ye ſhall take fayze water, and heate it ouer the fyze, then ſhall ye haue the poulder of galles, and put thereof into the Kettle ouer the fyze, and ſo let it ſeeth a quarter of an hower: then take it from the fyze, and take another veſſell and put therein ſo much colde water, as of the other in the Kettle, and put that hote in the Kettle thereunto. Then put your cloth therein, and ſtirre it wel vp and downe therein, and as ye haue done ſo a while, then let it lye therein foure houres long in that gall water, then take your Kettle agayne with other fayze water, and ſet it ouer the fyze & make it hote, then put of Allum therein to the kettle ouer the fyze, and as that water is hote, and the Allum melted, yee muſt then haue another veſſell oz fatte with colde water, as much as of the other hote water, and put the Allum water therein, then putte your cloth therein, and ſtirre it as afozeſayde, and ſo let it then lye therein foure houres long, ſo done, then yee ſhall wzing it out and hang it too dzye, oz to dzye in the ayze, but let it not bee to dzye. Then ſhall yee take your braſill made in poulder, and put it in the panne, and ſo let

it seeth therein, the quarter of an houre, and before that brasill do seeth, ye shall take wheat flower, & put therin, & mixe it altogether well in a dish, and put it into the Kettle before it do seeth: thus done, let it seeth, and as it hath sod, then take forth so much of the brasill, as ye may put in your cloth, and stirre it well about, as is afore declared, thus done, let your cloth rest therein a good while, then wring it forth, & hang it to dry, & as it is dry, ye shall take that lycor that it hath layn in, & put that away, then take agayn so much brasill as before, & put that cloth therein agayne, and then hang it to dry, and as it is dry, then put it in another lycor, & hang it agayn to dry, & then it is ful done. And to know the quantitie of weight, which is, to euery elle of linnen cloth, ye shal take a loot of gall pouder so called in dutch, and as much of allum, and to eche elle of cloth one ounce of brasill.

To make a fayre yealow.

To make a yelow, that ye may worke with oile, or water ye shal take woad, so much as ye shall please, & let it stand to soke a night and a day in lye made with sope ashes, and when it is thus soked, then shal ye seeth it, & couer it close so long as it seeth, thus done, then set it from the fier, and put that lycor into another pan, & so strayne it thorow a clean cloth, then take the pan & poure the thinnest aboue off, so long til ye see the dye vndercome with al, then take the foresayd cloth, and straine it againe thorow it, into another pan so long as ye thinke the substance of the woad doe tary in the cloth, til ye think that, that water is thyn ynough to strayne, and then ye may vse it.

A fayre Linnen cloth to dye blue.

For to dye a fayre blue, ye shall take a pan of fayre wa-

ter.

ter, & hang it ouer the fier, & let it be seething hote, then must ye haue a vessel of half an Ame, so called in dutch, of thereabout, & as your lycor is hote, put therto 3 pound of wheat bran, & 3 pound of ashes, & a pound of grening wed, stir al this in the pan, & let it seeth iii. or iiii. paternosters long, then tak of floray vnder half a pound, & soke it in fair water, & let it there rest a quarter of a houre couered, then take your clean vessel of Ame, & therin put your soked floray, then take the hote lycor ouer the fier, but let it coole or ye put it into the fatte, then put it in and stirre it well, and so couer it wel and close, and let it so rest sixe houres long, then vncouer it and stirre it wel about a good while then couer it close again, and let rest other vi. houres, then vncouer it & stir it as before, & so stop it agayn, then vncouer it within two or three houres, & looke if the die begin tocome, or begin to ware green, if they doe not, let it rest longer and stop it close, if yee see it be come, put therein some of your cloth that ye would dye, and turne it well therin, then wring it out, and let it rest 2 or 3 houres: then put in agayn your cloth, and vse it as afore sayd, & so stop it well agayn, & let it rest so, two or three houres, till yee shall see the dye begin to come, & the flower to lie aboue, & to euery going ý ye go thereto, see if the colour be greene ynough or ware greene, and when ye shal see it so, ye shal scom of the flower with a dish, and then put your cloth agayn therein, stir it wel, and wring it forth, then stoppe it agayne wel, and thus ye must colour three or foure times a day. Then must ye take the dye in the vessell, and hang it ouer the fire againe, and there let it be hote, and putte therein two pound and a halfe of ashes. Then put it in the Fatte, and so lette it rest, but stoppe it well and close, so let it rest a night, but stirre it once in the night with a staffe, and see in the morning if the dye be come, as afore sayd, and so put in your cloth agayne, but lette it not lye therein too long, that it coole not the dye, and as yee

haue thus dyed it foure times. Then shal ye make it hote againe ouer the fyre, putting therein two pounde of pot ashes, and so let rest al a night, and stirre one in the night as afore sayde, and stoppe it close, and when ye goe thereto, see if the dye be come, if it be come, ye may dye as before, that ye thinke good, and when your colour ware a fayre greene, then is your dye good and rype, and the flowers will lye fayre aboue, but as it beginnes to ware yealow, then it is too rype. Then must yee put in more cloth.

How to dye a fayre Linnen with brasill.

Ye shall take so much linnen as ye will, and to euery elle of linnen, take two onnces of gall nuttes, or xii. nuts, these nuts ye shall breake in two or three peeces, then put them in a kettle with water, and let them seeth together, and as they haue sod a quarter of an houre or lesse, take it of the fyre, and take your cloth forth thereof, and let it a little soke by, but let it not dype. As ye haue thus sod it, ye shall take another kettle with fayre water, and put it ouer the fier, and make it seething hote, Then shall ye to euery elle of cloth, take two ounces of Allum, which yee shall put in the sayd water, and as it is melted, yee shall take the foresayd cloth, and put it into the sayde kettle to the Allum, & let it seeth together, a quarter of an houre, then take forth of the kettle, and wring it a little, then hang it to dype a little, but not to much. Then must yee haue your sod brasill as thus: yee shall take lye made of wood ashes, but see it bee not to strong. And thereof so much in your panne as will make your cloth weat, then put your brasill in the panne with the lye, and so lette it seeth a quarter of an houre, then set it from the fier, and haue ready an earthen panne, and by and by put your lye or & brasill therein, then shall ye put your foresayd cloth therein,

therein, styre and turne it well therein, but see that it be not to dyye of the sayde Allum that it hath been sod with. Also to foure gallons of lye, yee shall put lesse then halfe a pounde of brasill pouder small beaten.

To make a fayre brasill colour, to worke on cloth or paper.

Ye shall take a fayre potte, and put therein a pound of chalke small broken, and put thereto a pottle of good Vineger, and stirre it well together. Then let it stand a day and a night, then pource the cleerest into a fayre panne and see that no chalke go therein, then take two partes of the sayd lye, and put it in a fayre pot, and set it ouer the fyre, and seeth it fiue pater nosters long, then take it from the fyre, and put the lycor into a fayre panne, and ye shal put thereto xiiii. ounces of allum, & stirre it well with a staffe, then take the other part, & put it to the sayd brasill wood, the which ye haue changed, and let there seeth, as aforesayd, and put that lycor into another panne, and put therto xiii. ounces of Allum, which ye shall stirre so well as aforesayd, and when ye haue tost it long, put it then to the other, and stirre it well, as ye will haue it dyye, take a pan and fill it full and set it in the winde eight dayes or more, and there let it dyye, & as it is fayre, ye may worke therewith.

Blue Buckeram to dye.

Take three pound of gruis of Turwin, so called in dutch, and a pound of Wede, a pound of Floray, and to three pound of Sope ashes, take lx. quartes of water, first ye shall put your Floray into a fayre fatte, and put thereto Ten quartes of water, and stirre it well all together, this must be so hote that ye cannot suffer your hand there-

in, in the other water ye shall put the gruis, with the ashes and Pede, and that put together, and so stand, which ye shall stir iii. houres long, and waring a blue, so ye may worke with it. If it be not blue ynough, so let it stand covered. xx. houres long.

A red to dye with Crampmede.

Take a pound of crampmede, to three elles of linnen, & take a fayre pot with water, and set it by the fire till it be ready to seeth, and put therin two ounces of gals, and let them so seeth together, and then put your linnen therein, and take it sometimes out and in, and at eche time wring it well out. Then take a fayre pot with fayre water, and make it seething hote, then put therin an ounce of allum, and so let it seeth wel, then put your cloth in as afore said. Then take another pot of water, and let it seeth therein til it be red, then take that cloth out, and clense it al about with a cloth. If ye will haue it more darker then must ye haue a lye of vnquenched chalke, with the like dye: men with woad ashes do make a red dye or colour, without vnquenched lime, in hauing woad ashes in steede of vnquenched lime.

To dye blacke Veluet or linnen.

Take of galles and coperas, & seeth them together, and put your linnen therein. if it be gray silke, then take of elder barks, and old yron, and put all in a hearing barrell or vessell. Then take gruis or swarfe, this shall be a thurden dele of the fat, the other two parts shalbe fayre water so let it stand three weekes long, & so stirr it often wel about, and put your gray silke therein, and as this is done, so shall ye hang it to dry, and so put it againe, so often till that it be black ynough. In steede of galles ye may take barkes of Oke, and shoemakers blacke.

To

To make grayflore.

Take flore and lay it to ſoke 24 houres, then wring it out thorow a cloth, then take lye of wyne aſhes, & ſpread it 2 houres long on a fayre table, then take the ſayd lye, and put it in three veſſels, and take the Flore & put it into one of the veſſels, Then put it well forth, then put that Flore in the leaſt veſſell, then ſo in the middeſt, and in the firſte, but eare ye put the linnen therin, put in vineger & wring it out.

To dye ſilke red.

Take of good wood aſhes, & make a good lye therof, & put therin of willow or facet woad, & barbary wood or yelow wood, & ſoke them therin an houre, then ſeeth a quarter of an houre, then put your cloth therein, & put in a little ſpaniſh greene, but that cloth ye muſt firſt allum it.

To make a blacke water to dye with.

A blacke water to dye all maner of ſilke clothes, ye ſhall take halfe a pound of gall nuts, and put therto ſomewhat leſſe then a pottle of water, and an ounce of ſwarfe of the grindſtone, and a good deale of the filings of yron, make it ſeeth, and put therto a quarter of a pound of coperas, & ſeeth all to the halfe, and put therein a pound of gumme arabic, then ſeeth it till al the gumme be melted. Then ſet it from the fire, the older it is the better it will be.

¶To make a thicke water to worke on yealow ſilke.

Take a pottle of the beſt vernice ye can, & put in an ounce of bzimſtone in fine poulder, & half an ounce of Camphier,

then seeth it a while, and let it coole, then straine it thorow a cloth, also with this ye shall worke thinne, and this must be sod with the fourth part of gumme Arabic.

To worke on yealow silke, white, gray or azure colour.

Take a pottle of Conduite water, and a fourth part of Arsenicke in poulder, and two ladle full of woad, cut the woad in small peeces, and make it seeth as hering, that is softly, then set it from the fyre, and put therein so much of graynes, as ye put in porrage, and herein also ye shall put in of gumme of Arraby, so much as you shall seeme good.

To make a red water.

Take a pottle of fayre water, and a fourth parte of gumme, and half a pot of faucet woad (so called in dutch) and then seeth it together till three pints bee consumed, then set it from the fyre, and herein yee shall put halfe an ounce of spanish greene, and then put in also of graynes, so much as ye doe in seasoning your pottage.

To make a red with brasill.

Take your Linnen to one pound, take a fourth part of Allum, but first seeth allum, then laye your linnen therin the space of two houres, then take of beaten galls, and put water thereto, then lay your linnen therein, and put in a quarter of a pound of brasill, and an ounce of gumme of Arrabie. Then let it seeth a fourth part in, & then put in your Linnen. If you will haue it a redde, then put in no galles.

To

To make a red water for white silke or woollen, greene, yealow, violet or azure.

Take a pottle of running water, and an ounce of brasill, seeth these till the halfe bee consumed. Then take it from the fyre, and put in so many graynes, as ye put vnto a pot of porage, and a fourth part of gumme. But if ye will make it a light red, put it into another fat, whereas there is a quarter of a pounde of Allum made in poulder, and so let it rest all a night and it will do well.

To make a blew.

Take three partes of Sope ashes, and one parte of vnquenched lyme, and make a lye thereof, and then lett it cleare, then strayne it thorow a thicke cloth, and yee shall take xb. quartes of the sayde lye, and put thereto a pounde of Bloemen (so called in dutche) then styre it all well together with a staffe, and warme it ouer the fyre, so that ye may not scant suffer your hande therein, but firste your cloth must be sod in Allum, and also dyped, then put it in the warme dye, two or three tymes, then after, if yee will haue it black or light colour, so yee may vse it, but before all things your dye must be warmed, ere ye dye or colour therewith.

To make a fayre sanguine dye.

Take vpon eche elle of linnen, fyre galles beaten into poulder, and then take three gallons of water, put into a tubbe, and put the poulder of the galles thereto, and stirre them well together, then laye your linnen therein, and turne and wend it well. Then take and wring it dye out, then let it lye therein agayne two houres long, but at eche

houre ye muſt wring it, as before, and lay it therin againe in the tubbe, and as it hath layne two houres, & ſo wrong out, then take one ounce of Allum, of the beſt, and three gallons of water in a Kettle, and make it well and hote redy to ſeeth, till all bee well molten, then ſet it from the fire, and put your linnen therin, and do it as ye haue done before agayne two houres long, then after that take a panne, and put therein two gallons of water, and warme that lyke the other, then take three ounces of brasill and caſt it therein, agayne let it ſeeth a quarter of an houre, then take a good quart of water, and caſt it therein ſeething, and take a quart of that dye, and laye your linnen therein ſix or vii. pater noſters long, ſo that the dye be dronk al in the ſayde cloth, then wring it foorth and handle it well, then laye the cloth agayne in that dye, toſſe it, and turne it and wend it well therein, and let it lye ſo long therein as afore ſayd, and ſo wring it out, then take the thyrd colour and laye it therin, and let it lye therein a quarter of an houre, and ſo it will be well.

A light red dye for ſkinnes.

To dye a fayre light red, take xiiii. dryed ſkins as they come from Antwerp, and put them in the ryuer, or in water two dayes, and two nights, then take them out of the ſayd water, and put into a fat, a Kettle full of vnquenched lyme or chalke, and put ſo muche water thereto, as the felles maye well be couered therein, then ſtyrre them well with a ſtaffe altogether, and put your felles therein, then turne and toſſe them well, if it bee in the ſommer, it ſhal be ynough to lye therein viii. dayes, & yee muſt erhe ii. dayes ſee vnto them, if it be in the winter, they muſte lye therein a moneth, then take your felles out, and hang them againe in the foreſaid ryuers or water three dayes, & three nights, then after waſhe them well in a tubbe with luke warme

water

water, and stampe them with your feete, then after wash them agayne in the ryuer water as afore sayde, and hang a Kettle ouer the fyre with fayre water, and therein put iiii. pounde of Allum, and when it is molten in the water, seething hote, putting in so much water that it may be no hoter but your hand may suffer therein without scalding, then set it from the fyre and put your felles therein, and styrre them well with your hand, so let it rest a day and a night, but as yee go to bed, you shall styrre them once wel, then after take your felles foorth, and wring the water well out, & as your felles do ware somewhat dyre, yee must weat them agayne: then take foure pottels of pisse, that is stale, hang it ouer the fier in a pan, let it seeth well, & scum it cleane so long as any scum will rise, then put in a pot full of beaten lacke, and let it therein seeth a little, and put therein so much Allum as a hasell nutte, and giue it therewith a boyling, then set it from the fyre, and let it so rest till it be colde to suffer your hand therein, then put a glasse full therof in your felles which bee readie sowd like a sacke, & hold it too aboue, and with your other hand hold vnder, & shake it vp and downe as ye would bolt meale, do thus so long til the colour hath well taken the leather, then turne your fels about, but if it bee faire ynough let it so bee, if it be not faire ynough, put of your sayde substaunce agayne another halfe glasse therein, and styrre it about as before, and then rippe your felles, and hang them to dyre in some hye lofte. And as they bee dyre, so take and lay them a night in a fat with water, and nexte day taw them on a sharpe tawing yron, vntill they be all workemanly done, then they are well,

To make Leather red.

Take an ounce of Allum & melt it in a gallon of water, then take a calues felle & spreade it on a rame, so it must be rubbed all ouer with allum water first, then incontinent ye shal

strike it all ouer with brasill water, and let it so drye in, and then strike it all ouer agayne, and so let it drye in like, but the colour or dye must bee made warme alwayes, when yee rub thereon. But fyrst ye must make it weat with cold water, and wring it agayne out, and then stretch it forth on a bord, and so ye may vse it.

The foresayde brasill water, ye shall make thus. Take Three gallons of rayne water, and put therein foure ounces of brasill woad made in poulder, and halfe an ounce of Wey ashes, called sope ashes, with a little saffron. Then seeth it so long till the third part be wasted. Then cleanse that out, and the pot with rayne water agayne, and let the halfe seeth away. Then is the strength all out, and with this last water yee shall colour first, and with the first water ye shall dye or colour last.

To dye red felles.

To dye red Leather, yee shall seeth Lack in bean straw, and a cursey pisse, as aforesayd is. Then put therin so much as two great Beanes, and then take an ounce of brasill water, and so let them seeth together.

To dresse Felles with golde.

To dresse Felles with golde, take broune red, & grinde it on a stone, with water mixt with chalke, and lyme water, and therewith you shall strike your felles Twise ouer, then laye your siluer or golde thereon, and let it drye, then shall yee smoothe it with a tooth, and so strike it ouer, and then drye it in the sunne.

To colour greene Felles.

To colour greene felles, take spanish greene, and grinde it

it vppon a ſtone with wine Vineger, and ſome ſaffron, temper this with gumme water and lyme, and ſo ſtrike youre ſkinnes therewith.

To gylde on leather.

Ye ſhall ouerſtrike your leather Thriſe with whites of egges, and gumme water, then lay your gould thereon, and licke it well and fayre, or the yolkes of harde roſted egges, mixte with gumme water and ground, the red and the gray ſkines yee may vernish them, take a flat baſon, and put fire vnder, and ſpred the felles thereon, and ſtrike vernish alſo ouer the ſkinnes, where it is coloured, but afore you ſtrike your felles ſtrike it warme on the Baſon, and then let it drye, then ſmooth the colour all ouer euen, and when it is drye, then licke it, or burniſh it with a tooth, and as yee will haue it fayre, ſo take an end of a tallow candle, and rub it on your arme from the hande to the elbowe, then ſtrike it all ouer with that parte of your arme, and it is done.

Agayne to colout leather red.

Take the dye for a red leather, and take an ounce of brafill, in a nealed pot, and ſeeth it till the third part be waſted, but firſt waſhe your leather in Allum water, or in other water, but lette it not lye long therein, ſo lette it drye, and put it therein, and let it reſt two dayes, and two nightes on a tack, and then hang that leather in the ayre to drye.

If yee will haue it ſanguine, take of vyne braunches aſhes, and make lye thereof, and with this lye, ſeeth your brafill woad, and ſo ye may colour red therewith.

To colour Leather greene.

Take an ounce of Equisetam, in English horsetayle, it is and hearb growing in low places or medowes, put therto of olde standing water, with a quantitye of Allum pouder, with a little coperas beate in poulder, so vse it.

To colour a blewe leather.

Fyrst you shall take an ounce of Endix, so called in dutch, with one ounce of chalke, and a pottle of Vineger, or good sharpe lye, then put all into a balon, and there styrre it all well together, first your feiles must be made ready thereto, as afore is declared, then put your stuffe thereon, and so vse it as the other, and it will shew a fayre blue element colour.

To make a fayre red colour.

Take your leather which is allumde before, then take of olde pisse, of such as vse to drinke much wyne, and let it stand till it stinke, then take the clearest thereof, and seeth it til the halfe be wasted, then take two ounces of lack, with one parte of brasill, a part of Allum, & a part of Salarmoniacum, beate them altogether, and put them in a pot, and set it ouer the fier, and stir it well with a white stick, vntill the sticke ware red as blood, then take it off, & colour therwith luke warme.

Another fine red colour.

Take halfe an ounce of brasill poulder, and halfe a pottle of olde water, seeth them together, and scum it well, then take a little allum, which must be first kild in clay, first take it

it from the fyre, and then put in your said allum, so reserue it, and vse it as the other.

To make a light blue colour.

Take the flowers of the blue bottels among reyne, and picke them off, then grynde them on a stone or morter, and put thereunto a little vineger, then temper it with allum as aforesayd, so shall ye haue a fayre blue colour, so may ye vse it incontinent for it will not last long but chaunge colour.

To make a white leather blue.

Take hengarten besen, so called in dutch, which I take to bee the low elder, called Dane worte, seeth the sayd berries in water, then with your hande styrre them well about, and also breake them, so done, then seeth it againe a while, and so let it coole, and being warme, strike all ouer your leather once or twise, or as ofte as yee shall see cause, then take of Endix, so called in dutch, and strew of that pouder thereon, and rub it in, and so it will do well.

Another way for red leather.

To make your red, take a pounde of Mosherumps with a little of vnquenched lyme, then put thereto a pottle of water, and let it stande a night, then take two partes of other fayre water, and a thirde part of chalke water, with a quantitie of brasill, then put all the sayde stuffe into a leaden pot, and let it seeth till the halfe bee consumed, then it will be well, and ye may vse it as the other.

To make a greene colour.

Take the leaues of an hearbe called night shade, then stampe or beate it in a morter of stone, so temper it with Allum, and so colour your skinnes therewith, also ye may take of the greene berries of the greene berrie tree (which the paynters vse) stampe them and so let them rest Ten or Twelue dayes, then straine them, and put Allum water thereto, and stryke your skin therewith, but firste make it warme, and vse it.

Another good greene.

Take one part of the foresayde lowe elder berries, and seeth them in sufficient water, then put therein two ounces of brasill poulder, and an ounce of walkers claye, with a pottle of olde water, let all these seeth a good while together, then put in your beaten allum, but not afore, so shall it be a fayre colour as the other.

If yee will haue it a more darker colour: ye must therewith strike Twise all ouer your skinnes: to haue it a lighter colour, then yee shall mingle with olde rayne water, and so vse it.

To colour blacke Leather after the order in Germanye.

To colour leather blacke, take a herring barrell, and lay it three fingers thicke in the bottome with elder barkes, then take the filinges of yron, and strawe it all ouer the sayde barkes, then take as much barke of elder agayne, and laye it therein, and so likewise your filings thereon as before. Doe thus, till the sayde barrell be three quarters filled, and hath taken to the quantitye of foure pottels, or

more

more of the filinges, then take so much of rayne water as will fill it vp to couer it all ouer, so let it stand a month or that ye doe colour therewith, and euer as it wareth empty, fill it vp againe with filinges, and rayne water as before, in letting stande (so filde) a moneth after, and alwayes let the last couer be the filings aboue, and when ye list to colour therewith, vnto three pottles of colour, ye must haue iiii. ounces of beaten galles, and two ounces of coperas water, then let it seeth together before yee dye, that ye may coulour the better therewith: thus ye may vse it at your pleasure.

To colour on white leather.

First take your skinnes and hang them in lime water, till they ware supple, or in chalke water, and when they be wel soked, if ye will make hast of them, first take of the heire, and clense it out of the sayd water, so that all the substaunce aforesayd be taken forth of the felles, and being clensed then a day or more, then wring the sayde water all cleane forth, and let them dry: and to vi. felles put not aboue two ounces of Allum, and lette your felles lye therein a nighte and a daye, then wring them and drawe them well vntill they be all cleane, and then vse them.

Another fayre red colour.

Take a felle or felles, and weat them in Allum water and salt mingled together, and to iiii. ounces of salt, take viii. ounces of Allum to the weating of your sayd felles, and also two ounces of lyme, then seeth all in two pottles of rayne water, then strayne it thorow a linnen cloth, and wash therewith what fell ye will, then sprade it abroade on the earth, and take a woollen cloth, and with the same

lycor, ſtrike the ſayd felles all ouer, and ſo let them dry. Then they will be ready for to receyue your colour, then after that take at the leaſt foure ounces of the lycor of the laſt end of a brewing, with two ounces of braſill poulder, then ſeeth all theſe in two pottles of the lye of ſope aſhes, with one ounce of Allum, and when it is well ſod, take it of the fire, and all to ſtrike your felles therewith, and then let it dry, and ſo they ſhall be ready and ſoft withall, and heare yee muſt vnderſtande with what colours yee ſhall ſtrike your felles withall, which is, with the red, and with blue, and alſo greene, for theſe ſhall chiefly abide and not go off, alſo to weat your felles, where linnen yearne hath been ſoked in, it will be likewiſe very good.

To colour a black ſpaniſh leather.

Take of Pomplemelc, ſo called in dutch, and make it warme, then waſhe your felles therewith till the whyte come no more off, neyther forth thereof, and to a ſmall fell ye ſhall take foure ounces of Venis tot appelen, ſo called in dutch, then beate it a litle into peeces, and caſt of faire water theron, and ſeeth it till it ware ſoft, ſo that ye may wring it betwirt your hands, then ſtrayne out the water thereof, if it be too hote, take a broad earthen panne, and put the ſayd licor therein, then ſpread your ſkinne abrode and dyp your fell therein till it be well weat, doe it ſo iii. or iiii. times, then take good ſhoemakers colour, or black, ſo much as ye ſhal think good, the which ye ſhal make the fell thorow moyſt withal, & put thereto a little vitriak copras, then wring it wel forth, & lay it together, and let it dry ſoftly, then take it ere it be thorow dry, and wring it betweene your hands, for ſo it wil be ſoft, do ſo often times and when it is drye, take of Goole greace, or hogs greace in a woollen cloth, and rub it therwith too and fro a good ſpace before a fyre, or by a hote ouen, ſo rub and chafe it

well

well in with your hands, that the greace be not seene, Of both, Goose grease is the better, then Linseede oyle, or shoemakers trayne.

Another way for black leather.

To make a black leather, be it sheepe or other. First take your leather and stretche it, then sprincle it well oute of your mouth with water, then take your tawing stock, & taw it well therewith, also rub and chafe it together with your hands as shomakers do, & draw it wel with your paring yron, then put it on your dressing bord, & strik it with a woollen cloth til it be al euen, & then ye may colour it, & when it is well coloured, then wring the sayd colour out of your skinnes, so put it in agayne into the sayd colour, & so do as ye did before, at the first time it must bee alwaye twise coloured, then hang it in the sunne and let it drye, then ye shall take it agayne, not being thorow dryе, rubbe it, and colour it agayne, as before. If yee haue it very soft: rubbe and chafe it betwirt your hands, euer before ye colour it, so being well dyed and coloured, which at the least must be v. or vi. times ouer. Thus yee muste do for sheepe skinnes, which also must be dressed with allum, and when ye lay your colour on them, then take lynseede oyle, and with a woollen cloth, strike your dressing yron therewith, and when your skinnes be thereon well tawed, then take of your sleight colour or dye out of your fatt all cold, and colour your skin therewith, once after your said linseede oyle. Then put it together, and wring foorth the oile & greace therein, & the colour also, and being well wrong out lay it together, and colour it once againe, and being thus coloured three times ouer, then take and dryе it, and so it is done.

To Gilde on leather.

First ye must worke it well, and ouerstrike it with the whytes of egges, and gum water beaten togeather, then lay your golo thereon, and strike it well, ye maye temper therwith harde yolkes of egges beaten with gum water. The redde and greene skinnes ye may vernish, as to take a bason with a smooth bottome, and put coles vnder, and then laye, and spread your skinne thereon, so strike your skinne all ouer with vernish, but afore ye strike it ouer (on the bottome of the bason or pan) yee shall firste rubbe and warme your skinne all ouer on the basons bottome, then strike your colour all ouer thereon, and so let it dry e, and being dry e, smooth it with a slike stone, and so yee shall make it fayre.

To make a lye to dye a blue.

When ye will dye a blue, ye must make a strong lye, and ye must take twise so many ashes with a third part of chalke, then make it seeth foure paternoster whiles, then cast thereto of cleane ware, whiche will make it clarifye the better, then set it ouer the fire, and let it there soke two houres or thereabouts, then put into a pan fiue pounde of woad, and put it to the sayd lye, then hang it ouer the fier, and warme it well without seething, and then put it in some hearing vessell, let it remayne there halfe an houre, then cast therein halfe a pynt of zemes, so called in dutch, and stirre it well with a staffe, then couer it wel the space of a quarter of an houre, and then it will be good and redy to dye with, then take of linnen yearne, or woollen cloth, other fustian or Dyer: to haue it a light blue, put it but once in, and to haue it a little browner, put it in twyse, and to haue it more browner, put it thrise in, or so long till ye

see

see it browne ynough, and when yee haue dyed what yee please, let the vessell rest till another day. If then ye will dye more yearne, linnen or woollen, then must the dye be taken out of the vessell, and put into a kettle, and put thereto foure quartes of lye, as is aforesayd, so couer it wel and let it stand one houre, then put thereto halfe a pounde of greening weede, and hang it ouer the fyre againe, and let it colour well without seething, then cast it into the vessel with a pint of zemes, and couer it well, and let it rest a quarter of an houre, and then put therein agayne to dye what ye thinke good, and colour it as is aforesayde, also when ye doe set and prepare your fatte, yee must haue to euery ounce of greening weede, one quart of good lye.

To colour or dye a blacke dye.

Take a vessell, and put in colde gall water, then lay your fustian therein, styre it and handle it well therein, and then put it into the black dye, and tosse it and handle it well theerin also, and then agayn in the gall water, and agayne in the dye, doe thus so often till it bee dyed ynough.

To dye a fayre yealow colour as Golde.

Lay first your linnen in allum water foure houres long, then take one part of chalk, and two parts of wood ashes, then make a lye thereof, and seeth your dye therewith, also the best lye to dye with, is, to take two partes of wood ashes, and one part of chalk, worke and vse it as yee shall perceiue best.

To

To dye fustian gray.

Take of hay ashes, and vyne ashes by themselues, and make a lye thereof, then put your fustian there in the hay lye, and then in the other lye, do it thus so long till ye see it all coloured ynough, with these and such like yee may dye linnen gray, but yee must put thereto a little moze of galles.

To dye blacke silke or veluet.

Ye shall first soke your silke in gal water an houre long and then lett it dzye, then shall ye lay it in the lye of saech meale, (so calde in dutch) and with ashes of vines, and lay it therin xii. houres oz moze, then let it dzie well, and after ye must seeth it in black dye two oz thzee times, til that ye thinke it be faire ynough.

To dye a silke that hath lost his colour.

Take Satten oz Damaske that must be made black, seeth it first in the dye of oken barkes, then dzye it in the winde, then seeth it againe in your black dye, and so let it dzye alwaies againe. And if then it be not blacke ynough seeth it in gall water and blacke dye, til it bee fayze ynough, so let it dzye, then rub all ouer with butter, oz other greace, and wzing it well betweene your handes, then strike it ouer with a faire woollen cloth, and so it will be wel.

To make a gray Fustian.

First lay your Fustian to soke the space of iii. houres, then

then to viii. elles of Fustian, take two ounces of broken galles, and put them into warm water, then put your gal water into another fatte, with eyght quartes of fresh water, then lay your fustian therein, & stirre it wel with your handes therein, tosse it wel, & wring it forth wel, & laye it therein agayne one houre, & so wring it wel forth, then put it into the black dye, and lay it therein another houre, so wring it wel, then scoure it in the faire riuer water, and then hang it to drye if then it be not gray ynough, soke it againe in fayre water, and then put into your gall water and then the black dye, then scoure it and dry it, so burle it and dresse it vp, and so it is done.

Black silke to dye.

To one pound of silke, take xii. gall nuts beaten into a fyne poulder, then seeth that silke with the galles in rennion water, halfe an houre long, then take of your blacke dye, and seeth it therein another halfe houre, then take it forth, and let it coole, and then put it agayne into the dye, and let it seeth therein another halfe houre, if then it bee not fayre ynough, seeth it therein, til it be fayre, then take and wash it out of that colour and hang it to drye, and so it is done.

To colour curried skinnes greene, or felles to couer bookes.

Take the buds of white & black thorn, which ye must gather in the moneth of August, when they beginne to ware rype and blacke, put them in a well leaded pot, the space of tenne dayes, then put thereto foure ounces of Allum, & boyle them together well, then putte it into a pousing vessell of Beefe or Porke, and close it well that it take no

wynd, then set it a little in the sunne, and when ye would colour therewith, take a little of the sayd colour, & myre it with some lye, and warme it, and then strike it on the skinnes, and ye shal see a fayre colour. Also take Lincaile, or canker of Latine, hony, and mire them together in like and put thereto pisse, so much that it may take colour, and also stayne the skinne, and then drie it in the shade.

To make a yealow colour on skinnes.

Take the rype seedes of Merpyn, so called in french, dry them in the sunne, and when yee will worke therewith, temper it with lye, and with a little allum of the Rocke, and let it rest till it be molten, the whiche will make it to take a yealow colour, but the lye muste firste bee heate a little.

To dye thread blacke.

Take a quantitie of broken or bruised galles, and boyle them in water in a small potte, and when they haue a little boyled, take out all the galles, and put into the same pot so much Coperas as yee haue had of galles, and put therewith a little gumme of Arabye, and then giue it agayne another boyling, so let it boyle a little, and with the sayde dye, yee shall colour therein your threed, then take it forth and ye shall see it a fayre shining black.

To dye thread gray.

Take of the sayd black dye, so much as ye list, and put thereunto halfe so much water, more or lesse as ye will haue your colour deepe or light. Then boyle your threade therein, and you shal haue it gray as ye list, other browne or lighter, other after a mouse dunne.

To

To dye thread in sad purple colour.

Take the barkes of Pomgranads, & the pilles of dryed Oranges, then boyle them in water with a little Allum, as great as a small nutte, then let it coole, and when it is colde, put your thread therein, and boyle it againe, and ye shall haue a fayre colour.

For to currie a raw Goate skinne.

Take a gotes skinne raw, and put it in warme water, and let it rest there a day, then scrape and cleanse it very cleane, and take away all the filth thereof, and to finishe it, take water, and set it ouer the fyre, and put therein a handfull of satte, and foure ounces of roche Allum, then styre all together till it begin to boyle, then set it from the fyre, and let it rest til it be cold, then take an egge, and beate it with a little Oyle oliue, this done put your gotes fell in the sayd water, and stirre it well all about with your handes thrce or foure times, and so it shall be in good case and well curried.

To dye skinnes in a blue like azure,

The wooll being cleane taken off, and the fell washed cleane in fayre water, so wring it al out, then take the beries of the greening tree, as paynters vse, and the berries, of elder, seeth them together in water of Allum, then strayne that water, so let it rest, then poure away the vppermost, and strayne the rest agayne, then let it drye, and washe with that cleare water, but see that your fell bee cleane: then take your colour, and strike your fell al ouer therewith being warme, and so let it drye, so it will bee a good blue.

To dye skinnes with Madder, called Kubea tinctorum in Latine.

First see that your skinnes be ready washed and wrong cleane, and so layd abroade, then shall yee weat it all ouer with the lyes of whyte Wine, wherein haye Salt haue been boyled, and so wring foorth that agayne, then take the ashes of the shelles of Creuis, or Sea crabbes, and temper it with the foresayd water, and salt, and therewith rubbe your skinnes and wash them well then with cleare water, and wring him, take ruddle & temper it with the said lies, and rub it al ouer therwith, & so with the said ashes, thus wash and wring it three times, if it be not then well, ye shal giue him a colouring with brasill, and your Madder mixt together with the sayd water or lies, or that some tartar haue been sod in, which must be made warm, when ye lay your ruddle, so leaue it a night, then putte on your Madder, mixt with allum, or lies, or allum çativum steeped in water, also you may adde vnto it, the shering of scarlet taken out of the boyling lye, which is also good.

A good greene to greene skinnes.

Take first and cleanse your skinnes, annoint and soke them well in cold water, then take the berries of the sap greening tree, and being rype about Michaelmas, take & stampe them, and so let them rest iii. or iiii. dayes, then put therto of raine water a little, and then boyle them with a soft fyre, in stirring them still, then if ye will haue it light greene, put to but a little allum, & the sadder green put to the more allum in they boyling, & boyle it but a little, then ye may fold your skinnes in the middest, and rub him on both sides therewith, and then with a little poulder of allum, then take ashes burnt of sheepes dung, and all ouer

rub

rub your sayd felles therwith on both sides, then rub him with the sayd colour agayne all ouer, so washe him with fayre water and let him so dyye, but finely wring him out, then spread him, and cast of the foresayd thinne colour, all ouer the fell, and so let him dyye, & it will be a fine colour.

A sleighter greene with the sappe berrie.

Let your skinnes be first annointed, & wel washed, and so wrong forth, and then stretch them as the order is, then take of the same sap berries aforesayd, let them be stampt with roch allum & water, and a little boyld, and therwith giue your skinne a stroke or two all ouer, & then let it dyy, then giue him a colouring with yealow, made of the sayd berries, sod with allum water, and againe of saffron, then let it dyye, and ye shall see a faire colour.

Another greene for Skinnes.

Your skinnes being annoynted, washed and spread, ye colour him with the foresaid sappe greene, and put vnto it a few weat ashes, and rub the fell all ouer therewith, & being washed & wiped againe, strike him ouer with Indian colour, sod with roch allum, & let it dyy, then strike him ouer with the foresaid yealow, and so yee shall haue a faire excellent greene colour.

To dye a Crimsine colour.

Scrape hard sope, and so melt it in commen water, & put your silke in a linnen or thin canuas bag, & so put ye into the kettle to the soped water, & let it boile softly halfe an houre space, but stur it oft for burning, then wash it in salt water first, and after in fresh water, for eche pounde of silke, take a pounde or more of allum, laide sufficiente

in colde water, and therein put your silk without the bag, and let it rest therein viii. houres, then take and washe it in fresh water, then wring it, and put it in the pan to the crimsin colour, being well stampt and cleane, take iiii. ounces, & boile it with so much water as will couer your silke foure fingers aboue in water, and to eche pound of crimosine colour, put too three ounces of galles in fine pouder, or in steede thereof ye may put in halfe an ounce of Arsenic, which is not verie wholesome because of the fume, nor the water thereof, and when it boyleth put in your silke as afore prepared, and there let it boyle a quarter of an houre, then wring it a little, and dye it in the shade, and so it will be fayre.

To die a black after the common sort of the countrey women.

They take so much water as will couer the hose, or other cloth, but firste they all to strike their hose or cloth, with swart of the grindstone, then they laye elder pilles first in the bottome of the vessell, & thereon lay your cloth or hose, and then pilles thereon againe, then lay your hose thereon, & pilles theron agayne, & then couer al with water, so let them boyle softly two houres space, and turne your cloth often therein, then see if it be black ynough, if not, take new swart, and pilles, and vse them as ye did at the first, and so boyle them agayne till they be black, then scoure and wash them out, and it is done. Some women doe take (in steede of elder) plumtree pilles, some black thorne, and some yong oken pilles, and oke apples greene, and so dyes with them in like case, or the tender shewts of brachyers, or greene walnut huskes, al these are good in sommer to dye with.

How to harden Iron and Steele, and also to soften, to sowder, and to gylde.

To make Yron or steele as soft as Copper.

TAke a chalke stone vnslect, with as much allum, first stampe the Allum verie fine in a morter, then take your chalke and mingle therwith, then spred it half a finger or a finger thick, on a linnen clout, & wrap your yron therin, which ye would haue soft, & lay it in the middest of a fyre, and there let it lye an houre or more, till the fyre is out and be all cold of himselfe without any other thing done to it. Then shall ye take out your yron or steele, and it will be as soft as it were right copper in his hardnesse.

Another way to soften.

Another way for the same, take only a white fire turffe, and lay your yron or steele in the middest thereof, and lay it in the fire, and let it lye there so long, till the fyre do go forth, and ware colde of it selfe, then take it out, and it shal be as soft as neede shall requier.

To make Yron soft.

Take the water, or the iuyce of Rafany, which I take to be the Rape, then heate your yron hote, and quenche it therein, and it shall become soft agayne.

Another way to make yron ſoft.

Take of Sope aſhes, and vnſlect lyme, of eyther alyke, then make a lye thereof, which lye yee ſhall ſtrayne nyne tymes thorowe a ſtrayner, then take other yron or ſteele, and lay it therein one night, and it will be ſo ſoft yee may eaſilie cutte it, will yee then haue it harde agayne, ſo quenche it in colde water, and it ſhall ware harde agayne.

Another way to make yron or ſteele ſoft.

Take the yelow flowers of Marigoldes, with the ſtele and bloſſome, ſtampe the flowers, and ſtrayne it thorow a cloth, and put that iuyce into a pot, then take the yron or ſteele that ye will make ſoft. and as red hote as yee canne doe ſleke it in that iuyce, and it will bee as ſoft as Copper.

Another way to ſoften.

Alſo take ſlecken and long wormes out of the earth, of eche a like, and a thyrd part of ſalt, then take an earthen potte, and make it full of holes in the bottome lyue toa ſiue, then take the ſalt, and ſalt the wormes into the pot. Then take another potte, and ſet it vnder that pot, then will that ſalt melt with the wormes, and runne into the other potte, and that in the vnder potte yee ſhall keepe, then lay a ſtone on that pot, and make it to ſeeth well, and ſcumme it ſo long as any ſcumme will ryſe, then take it from the fyre that it may coole, then ſcumme that off aboue, then make your ſteele red hote as fyre, and ſo quenche therein, which yron or ſteele a man may bow like as it were copper: then to make it hard, heate it red hote,

and

and quenche it in cold water, and yee shal thinke it were fine steele.

To make yron soft.

Take an hearb called in Latine, Vngula cabellina, it si a clote, cald in English of some colts foote, or Bulls foote, take and make a water thereof, and make your yron redde hote, which yee will haue softe, then quenche it in the sayde water, and it shall become softe, that yee maye vse it for your purpose, and so harden it agayne as the other.

Another way to soften.

Take Slecken so call in dutch, and stampe it with strong wyne Vineger, then make your yron or steele red hote, that yee will haue softe, ond quenche it in the sayd iuyce, and then it shall bee softe like the other, and to make it harde agayne, wherein to quenche with cold water as before.

To make Steele or Christall soft.

Take of vnquenched, lime, with as much of sope ashes, & thereof ye shall make a lye after this manner, which is, ye shall straine it thorow a strainer iv. times, then take your steele or christall, and lay it a night therein and a day, so it shall be very soft, if ye will haue it hard agayne, so quench it in cold water as the other aforesayd.

Another way to soften yron.

Take your yron red hote, then quenche it in Linseede Oyle, doe this so often till ye shall perceiue it to bee soft ynough,

ynough, and another is, take the bloods of Eeles, and make your yron hote, and quench therein.

Agayne to make yron soft.

Take ob clay, and lappe it round about your yron with a weat cloth, then lay it in a hote fyre of coles, or in a fyre of white turffes, so lette it lye till hee coole by hymselfe.

Another to soften yron.

Take the iuyce of an hearb called in lattin Marubium, in English Horehound, with the iuyce of gherwe, so called in dutch, which I take to be Henbane, and also the iuyce of Radish, and mire them with Aquauite, then quench therein: and when yee will haue it harde againe, then make it red hote as before, and quench it in cold water.

To make Iron as soft as lead.

Take and make blacke flintes into a fine pouder, and grynd it well vpon a painters stone, then put it in an yron panne, and make it red hote, then cast it on a marble stone, till it be nye colde, and then againe make it red hote, then let it coole, and grynde it so long till it cleaue to the stone and grynder like clay, then put that in a glasse, and set it vnder the eaues of a house, where the sunne commeth not nye in the daye, then the night after take out the water, that ye shall finde in the glasse aboue thereon, then take that pouder, and grinde it with the water, and put it in a stillitory, and let it still out the halfe, then reuerse the water agayne vpon the poulder, and still it agayne with a soft fire, then take and seeth that water till the halfe bee wasted, so done: then take some yron blade that is new

broke in two, & put it together & holde it so a little while, then take of the water which was sod to the halfe, & with a feather lay it fyrst on the one side of the blade, and when that water is colde, then lay it on the other side, and it wil sowder fast with that water.

And with this water ye may make steele as sofe as lead, or butter, & to make thereof with tooles, as in waxe what ye list. Also this water is a soueraine thing to helpe the goute, if therewith it be annoynted where the greefe is, & it will soone remedie it. With this water ye may make letters on yron or steele, towrite with a water theron with your pen. Then after take of the vnsodden water, and put thereto some saffron, and grynde it together, and then drawe thereon what ye will with other water, and so let it drye, which shall seeme a fayre colour like golde, thus ye may mixe and grinde any colour ye please with your sodden water, and it will shew in like fayre.

To make Steele or yron soft.

Take the iuyce of Hemloc, stampe and straine it, then put vnto it of neates Oyle, and so warme it, and beeing warme, make your yron or steele red hote, and quenche therein, and then heate your yron agayne three or foure times, and so quenche therein, till ye see your yron become soft, and bow like lead, also ye may take oyle, and droppe into it molten leade three or foure times, & therein quench your yron or steele also.

To make yron or steele so soft that ye may easily wreath it.

Take the gall of a Bull, or of an Ore, and mixe it with Uernice and pisse, with the iuyce of Nettles, eche of lyke quantitie, then make your Steele or yron red hote, and so

quenche therein,and ye shall see experience.

To make yron soft another way.

Take Saluiter, Uitrioll, in poulder made and well beaten together: then yee shall distill them in a Lymbec of glasse. Then take the sayd distylde water, and your yron which ye would haue soft, lay it therein a day and a night, then take out your yron, and couer it in hote horse dongue, the space of fifteene dayes, then worke therwith and ye shall see experience. Also in making your yron red hote, ye may quenche it in Ore dongue,or Cowe dongue mixt with honye, and Dyle olyue. Then heate it and so often quenche therein, and yee shall see it will be so soft, that ye may make or worke with it at your pleasure.

Another good way to soften yron.

Take hony & skumme it cleane, and then take of frech new gotes pisse, a quantitie of roche Allum, as muche of Burras,also of Dyle olyue,and salt in like portion, then mixe them al well together,and make your yron red hote, and so quenche therein.

Agayne, when ye would soften any yron or steele, firste holde it ouer the flame of the fyre til it be hote, then strike it ouer with suet or other greace, then hold it ouer the fire, and let it drye in,do so twise or thrise and it will be soft.

Also take of horne and scrape it vpon leather, and put thereto Salarmoniac, and pisse thereon, then turne your yron thereon being hote, til it hath consumed your leather and stuffe, and so it will be soft.

Likewise take of Salarmoniac,of vnslect lime, of ech like, of Uenis sope more then both the other, stur all well together, and lay your steele therein, and make it moyst

with

with Vineger, so let it rest therein, foure dayes, and worke therwith, ye may vse small peeces so, but for greater, take cow dongue, whites of egges, and clay, temper it with vineger, and lay your steele therein.

Another, take salt, wine stone, of eche in like portion, temper it with clay altogether, and so lay your steele therin, & so lay it in the fyre, the space of two houres, then take it forth, and let it coole of it selfe, and it will be soft.

Agayne, take of sope and vnsleked lyme, of eche in like portion, and of Salarmoniac somewhat lesse, and worke & make a paste therof, then lay your yron or steele therein, & so lap it round with clay, and lay it in the fier, & heate it red hote, and then take it forth and let it coole of it selfe, as the other aforesayde, and then ye may worke thereof at your pleasure.

A poulder to soften mettals.

Take iiii. parts of looking glasse, of galles, of other glasse, of salt, of eche one part, beate & mix them all wel together, & iii. parts of the same pouder, & one part of your mettal, and melt them together, and so vse it as ye please.

To make yron hard.

To make yron hard, ye shall take the distilled water of Varuen, and heate your yron red hot, and quench it therein, do thus viii. or ix. times, and ye shal see it very hard: also another, which is, take the greene iuyce of Marubium, cald in English horehound, with the iuyce of radish, mixt with some Aquauite, & your yron being red hote, quenche therein, or take the said horehound, and dry or burne it, and then make poulder therof, & mixe it with much salt, & harden therewith.

Another way to harden yron.

Take of Antimonia, Callamint & Coperose, beate eche by himselfe to poulder, and then strew therof on your gloing yron, and so heate it agayne, and all to smeare it with these poulders agayne, then temper it with this iuyce following. Take the iuyce of Celoudine, as much of the roots as blades, till x pounde waight, and stampe them, and seeth the iuyce to sixe pounde, and when yee will season any mettall, quenche in the sayd iuyce of Celidon, and it shall be hard.

To harden hammers and kniues.

To harden al manner of edge tooles, ye shal take horse dongue, and then make your Kniues or other tooles redde hote, and so quenche it therein, also to take the filinges of yron or steele, and they will harden also, or take shoes and burne them till they be black, and make a pouder thereof, and take of that poulder, with the like quantitie of salte, then straw it vnder and aboue your files, which shall bee layde in a square yron, couered with a lid of yron, yee shall straw your pouder thick thereon, and then shut it. This ye shall make red hote altogether in a hote fier, and quickly quenche it in cold water, and so let it coole therein, and it will be good and hard.

To harden another way all kinde of tooles.

Take the iuyce of Pentasilon, that growes in heathes, which is fiue leaued grasse, called of some synke foyle, with so much of the iuyce of wormewood, keepe this in a vessell of glasse. Then take Pieren (so called in dutch) and stampe it and straine it thorow a cloth, and al too strike o-

uer

uer with this, your yron being red hote, and as it dryeth in, strike it so againe, and it will make it hard.

Another good to harden yron or steele.

Take the iuyce of an hearbe, called Nigil Romana, in Latin it is called Melanthia, and make your yron red hot, and quenche therein, Agayne, to make yron so harde that it will cut all other tooles, make it red hote, and quench it in the iuyce of Mouse eare, whiche is called in Latine Pilocella.

To harden yron so hard as steele.

Take Snayles, and the first drawne water of a red die of the which water being taken in the two firste moneths of harueste, when it raynes, then still it, or taken in the end of May, then heate your yron red hote, and quench it therin, and it shalbe as hard as steele.

Also take Fimus humanus, the dongue of men, still it in a Lymbec, so that no water come threunto it, and that it maye bee somewhat drye when yee still it, and take yee heede of his sauour, the water ye shal distil twise in a new glasse, in Balneo mary, that is, one glasse within another in a pot of water.

Ye may do the like, stil mens blood of a man of xxx. yeres and of sanguine complexion, warme and moyst, and being of a mery nature, and pleasaunt, and whole & sound of body, such a man to be let blood in the middest of his age, and that hath plentie of blood, distil of his in the middst of may or in May. And thus by proofe, and also the water of mans dong, if it be wel and rightly stild, heate your yron glowing hote, and quench it in that water, so it will make it as hard as steele. But if that water be not rightly stilde, the yron will not harden therewith, but be as soft as it was before.

To make yron or steele hard.

Take the iuyce of Uaruen, called in Latin varuena, and strayne it into a glasse, and ye will quenche any yron, take thereof, and put to of mens pisse, and the distilde water of wormes, so mixe altogether, and quenche therein so farre as ye will haue it hard, but take heede it be not too harde, therefore take it forth soone after, and let it coole of it self, for when it is well seasoned yee shall see golden spottes on your yron.

Also the common hardning of yron or steele, is in cold water, & snow water, so when the edge shall seeme blue after his hardning, signifieth a good signe & a right hardning.

To make steele hard, and to cut well.

Take an hearb called ore tongue, or langdebefe, seeth it in water, both the roots and leaues, then make your yron or steele red hot, and quench therin, and ye shal see experience. Also take the yelow flag, cald in Latine spatula fætida, some do call it spurge wort, take with it Uaruayne, of eyther like quantitie, then seeth them together in fayre water a good space, and then let them stand and cleare til it be cold, then heate your yron or steele red hote, & quench therein.

Yee maye make mustard, and put vineger vnto it, and quenche your mettals therein. Also ye may take the iuyce of earth wormes, with the iuyce of housleeke, beate them together, then strayne them, and quenche therein, or take of mens heare, and heare of beastes, and seeth them in water till the water ware reddish colour, then let it coole, strayne it, and quench therein.

Also some do quench in the iuice of radish, & the iuyce of smallage, mixt together, and therfyne poulder of rosin, put therein,

therein, and therein quenche your mettals. Agayne, they take the iuyce of Ueruin, and the iuyce of an hearbe called Dragons blood, and of scraped horne, with halfe so much salt, the iuyce of earth wormes, and the iuyce of radish, put al these together aforesayd, and therein quench your mettals, this way aforesayd are very good to make your mettals so hard as ye would desire, & make them whole, fayre and bright withall.

To make yron hard without any crackes, clefts, or warpinges.

Take first suet or tallow of a beast, and melt it, then put it in some pot, or some other vessell, whereas colde water is, and this molten suet must be a finger thick vppon the sayd water, and when ye will harden any thing, yee must put it downe softly thorow the suet, into the sayde water, and the quenching first in the suet, and then in the Water, it doth saue it withoute cracke, cleft, or warping.

Another way to harden yron.

Take the iuyce of Uaruin, and take of land wormes in the field, after the plough, or a nights in gardens, and put a pint of those wormes into a leaden pot, then put vnto a good handfull of salt, then stur them well, and so there wil come a water of them, and that water straynde vnto the water or iuyce of varuin, and when they bee together, yee shall quenche therein. This way is good for all weapons.

A way to harden Pikeaxes, Fyles, or other tooles.

Take the iuyce of Radish, the iuyce of Cadloc, the iuice of greate

great wormes, a quantity of gotes blood, mixt altogether, & your weapons being ground, quench therein, & likewise your yron. to make it hard. But to harden, Mayles, Axes, Knyues, and such, is to quench in the iuyce of radish, also men oft times to make files hard, do quench in Linseede oyle, or with scrapt horne, or with goates blood.

To harden tooles to hew all other.

We shall gather of fielde snayles, or house snayles, with their shells, then stampe them a little, and distill them in a Lymbec, and in that distild water, harden your steele or yron, but if ye will haue it very hard, ye shal take sand and brymstone, and grinde them together, and so strewe it on your yron or steele being red hote, and then quenche it in the sayd water, and they will be very hard.

A way of hardning of Augars, Persars, and such like.

We shall take of mens vrine old and cold, with the iuyce of varuen, and the iuyce of wormes, of ech like quantitie, then sturre it well altogether, and so quench your mettals therein, so farre as yee will haue it hard, then let it coole softly of it selfe, till ye see spots like gold rise thereon, then take it out of the sayd water, and they will be well.

To set a colour or Vernish on yron.

To vernish yron or steele, take the gall of a Calfe (and your yron or steele being cleane vernished,) take & stryke with a cloth your gall thereon, and then let it drye in the sunne, and it will shew like a gold colour.

To

To colour tinne, or copper, or to colour the buckles of gyrdles, and such.

Take of Linseede oyle so much as ye list, set it on the fire, and scymme it cleane, then put therein of Amber, and of Alopaticum, in like poztion, then beat and styzre it wel altogether, with the oyle ouer the fyze, til it ware thicke, then take it from the fier and couer it close, then set it in the earth thzee dayes, and when ye list to occupie thereof, stryke your mettall al ouer therewith, and so let it dzye as afozesayde in the Sunne, and so yee shall haue a golden colour.

How to gylde vpon yron or steele.

Take a quantitie of wine stone, with as much Salarmoniac, and like of verdegrece, and some salt, then seethe altogether in whyte wyne, then stryke all ouer your burnished yzon oz Steele, and let it burne in the sunne as befoze, and ye may gyld thereon with commen gold as the ozder is: and so it will be fayze and good.

To gyld yron with a water.

Take of water oz running water, foz iii. pound of water, take ii. pounde of roche allum, and an ounce of vitriol Romayne, and a peny weight of verdigreace, of salgemma thzee ounces, one ounce of Dzpement, then boyle al these together, and when it begins to boyle, put in some lyes of tartre, and bay salt, of euery halfe an ounce, make it seeth, and being sod a pzety while, take it from the fier, & then strike your yzon therewith, then let it dzye agaynst the fier, and being dzye, burnish it, and it will be fayze.

To gylde on yron another way.

Take iiii. ounces of oyle lyne, of Tartre or wine lyes two ounces, and two ounces of the yeolkes of harde rosted egges stampt, of Alio Cicotrinum one ounce, a quarter of a dragm of saffron, then boyle all these in an earthen pot a good space, & if the oile of linseed couer not al the substance put thereto sufficient of water, then annoint your burnished yron therewith, and it will shew as the colour of gold.

To cast a siluer colour on copper for buckles of harnes and such.

Take of wine stone, of allum, & of salt of ech like quantity, then grynd them altogether on a paynters stone, and put thereto a leafe or two of siluer, and so grynde it well with the rest of your stuffe, so done, then put it in a leaded pot of earth, and therin put your copper a little while, so done, then scrape it with your wyar brush, then yee shall see if it bee well, if not, let it remayne therein long, and so will it be fayre.

To gylde yron as Goldsmiths do, with quick siluer, and gold foyle.

Take vitriol i. ounce, allum ii. ounce, salarmoniac i. ounc, then beate these into poulder, and boyle it in commen water, then take your burnished yron, & al to weat it with the sayde water, so then lay your goldfoyle theron, & dry it agaynst the fier, then burnish it as men do, & so it wil looke fayre, but if ye wil gylt with gold mixt with quicksiluer, as goldsmiths do, ye shall put in a dragme of verdigreace, with halfe ounce of Sublimatum, so boyle them together, & let your yron boyle in the same water, but being so greate

ye

ye cannot, then rub it therewith & heat it to receiue better the colour, with quick siluer and gold, & when yee haue so heated your yron, yee may gild with the same gold so mixt & then fume it with a fire lamp, or brimstone or wax.

A good way to burnish yron.

Take an ounce of Alopaticum citrinum, & an ounce of Amber, then mix and beate them together into a powder, then set it ouer the fire of coales in an earthen pot, & make it not too hote at the first, but when it is molten, put therto a quantitie of seething oyle, & stur it all wel together with a stick, then let it rest, take it from the fire and coole it, and so keep it, and with this ye may vernish at pleasure, as yee doe other mettles.

To sowder on cold yron.

Take two ounces of Salarmoniac, two ounces of salt, two ounce of winestone made in poulder, ii. ounce of clock spyce, so called in dutch, vi ounces of looking glasse, beate all these, and mingle them well together, then put them in a linnen cloth, & lay it round, a finger thick with good clay which clay must be wel tempered. Then put them in a leaded pot of earth, & couer it with another like pot of earth, then set it softly on glowing coles, so let it softly warme, and by little & little encrease your heate, till the said stuffe bee all glowing hote & runn, so done, then let it coole from the fyre, then take it foorth and breake it small, and so grynde it to a fyne poulder, and when ye will sowder any yron, yee must make it fast on a boorde, and see that the ioyntes be sette close together as ye canne, and firste lay a paper vnder your yron, and put of the sayd poulder a little betwirt the sayd ioynts, and also vpon al the ioynts, then wrappe it all rounde wite clay, sauing aboue

which yee shall leaue open to sowder at, then take of the poulder of Burras, and put it in wine luke warme, or Aquauite, and so let it melt therein, so done, take of the same wine, and with a feather strike on the ioynts aboue which be vncouered, then it will begin to seeth, so when it leaueth seething, it is then whole sowdred and sound, then being so, take of your clay, and such roughnesse as doeth remayne on the ioynts, which ye shall not fyle of, but grynde it of, and thus it shall be well.

Another way to sowder warme on yron or steele.

Take of gumme water, and beate therwith some hearbs, which hearbes, it shall not skil what, and make it thick as a paste, and when ye wil sowder any place, strike thereon, or lay it on the ioynte, then rub it thereon with sope, and then holde thereto a fyre cole, and it will runne. Then washe of the sayde dough, from the sowdred place, and so it will be fayre.

To sowder on Copper.

Take an ounce of Coperas, halfe an ounce of whyte Arsenic, which is called whyte Orpement, then make your Copper to runne, and diuide your Arsenicke in two parts, then cast one part into your copper, and stir it well all together, and then cast in the other parte of your Arsenic to your copper, and stir it wel altogether, so done, cast it on a stone, and spread it thin, and when it is colde, beat it into a fyne poulder, and vse it likewise, as the other before mentioned.

To sowder on Latine.

Ye must fyle your lattine cleane all ouer, then put the

ioyntes close together, and thereon scrape quickly your burras, so ye shall see it well and sure sowdred.

Another sowder to sowder on yron.

Ye shall set your ioynts of yron as close as ye may, the one vnto the other, then lay them so in glowing coles, and then take of Venis glasse, made in fine poulder and poure yron being red hote in the fyre, caste the poulder of your glasse thereon, and so it shall sowder of himselfe, and bee very strong withall. And if ye clap it in clay as aforesayd ye shall not do amisse.

Another good way to gylde on yron or Steele.

Take one ounce of Dragall, or Dragys, in dutch so named, with a thyrde part of Vermillion, and a fourth part of Bolearmoniac, with as much of Aquauite, then worke and grinde them altogether on a stone with lynseede oyle, so done: put thereunto some of the stone called Lapis Calaminaris, the bignesse of a hazel nutte, and grynd therwith in the end, three or foure droppes of Vernish, so take it off the stone, and strayne it thorow a linnen cloth into a stone potte, for it must bee as thyck as hony, so keepe it, and strike it whereon ye list, and so let it dry, and then ye may lay your golde, or siluer thereon, as aforesayd.

A Varnish like golde, for tinne, Siluer, or buckles of copper.

Ye shal haue small pots well leaded, then put therin vi. ounces of Linseede oyle, one ounce of mastick, an ounce of Aloepaticum citrium, then make them altogether in fine poulder, and then put them into your sayd oyle, & couer it

with such another pot, which pot aboue yee shall make a small hole in the bottome thereof, wherein ye shal put thorow a small sticke, with a brode ende beneath, to stur the other pot withall, and when the pots are set iust together, one to the other, ye shal close them al about with good clay and couer them all ouer also, in leauing but the hole open aboue, with the stick to stir the other pot, so done, set them ouer the fyre, in stirring it ofte, as it doth seeth, like painters vernish, and when ye will gylde therewith, poollishe your mettall fyrst all ouer, and then strike the vernish all ouer thereon, and then let it drie in the sunne, if it lye too thinne, strike it ouer again so often as ye shal thinke good, and so let it drie betwixt your striking, and then yee shall see it will do well.

A way to graue on yron or steele, or other kinde of weapons.

Take cole of a willow or sallo, two parts of Vitriol or Copares, two parts of Salarmoniac, worke and beate al these together well with Vineger, and make it thick like broth, and when ye will eate or graue any thing withall, draw first thereon with this thing following. Take Vermilion, & linseed oile mixt all together, then drie it, & laie it ouer with your past a finger thick or more, and the warmer it is, the sooner it will graue and eate, but see that it burne not, and when it is dride well, doe off the said poulder, and cleanse the casting out, then take twoo partes of spanishe greene called verdigreace, and a parte of salte, then beat them together in a morter, & put vnto it stronge vinegar, & do as is aboue said, or take Vitriol, Allum, salt, Lapis calaminaris, vineger, and sallo cole, and make it as the other afore said, or take two parts of vitrioll, and a third part of salarmoniac, and grind them wel altogether on a stone with vrine or pisse, then lay it on as it is afore-

sayde, but ye mu ſt lay it cold on, and ſet it then foure or fiue howers in a ſeller, or low coole place, for it wil be the better.

A water to eate or graue on yron or ſteele.

Take of verdi gre ace, of Mercury ſublyme, of vitriol, & of Allum, of ech a like, then beat them ſmal, & ſo put it into a glaſſe, ſo let it ſtand half a day, & ſtir it often, then ſtrike it al ouer with war. or yealow lead, mixt with lynſeed oyle, or liiſen ſmout, ſo called in dutch, and ſtrike thereon with the water in the glaſſe, & let it ſtand half a day, but if yee wyte or lay thin that ẏ water may eat it the ſoner, which ye ſhal couer al the yron or ſteele thin with war, & to drawe theron what ye liſt with a penſil in the war, vnto ẏ ground then ſtrike your water al ouer, and ſo it ſhal eate on your grauen places, or laye thereon Mercury ſublimatum in your grauen places, and put thereunto vineger, and ſo let it reſt halfe an houre after, and it will do well.

Another water to eate on yron or ſteele more ſtronger.

Take an aunce of Uerdigreace, halfe an ounce of Allum Plumoſum, and half an ounce of Salarmoniac, as much of wyneſtone, and halfe an ounce of Uitriol, and as much of commen ſalt, let al be ſmal beaten, & ſo put together, & put therto of ſharp vineger, & ſo let it ſtand an houre, and when to graue or eate any thing therwith, it muſt be firſt grauen, & ye ſhal wyte with Liiſen ſmout, or yelow color, then let it dryye, and then make your foreſayde water hote in a leaded panne, and let it ſtand ouer the fyre, and holde your yron and ſteele ouer the panne, and poure of that hot water theron with a ladle, that the reſt may fall agayne into the foreſayd panne, thus muſte yee doe ſtill a good

quarter

quarter of an houre, & this doing, then take ashes or vnslect lyme & rub it, & looke of that ye would haue eaten, if it bee clean or not, if not draw it again with your yelow matter, & then poure on your said water, & so ye shall haue it well.

To lay gold vpon yron or other mettall.

Take of liquid varnish i. li. of Turpentine & oyle of linseed, of ech i. ounce, then mix them well altogether, & so reserue it, on this ground ye may gild vpon any mettall.

Another way to gild vpon yron.

Take of bolearmoniac, & white gumme, of ech one ounce, then put it into a pot of earth wel leaded, & let it seth therin softly with a fier of coles, & put therin two ounces of linseed oile, & when it doth rope like a thread, it is then a sign it is ynough sod, with which yee may vse to gylde as is afore declared, by these and such practises in mettals, yee may finde out the like of other hereafter.

A water to eate on mettals.

Take an ounce of Saltpeter, an ounce of coperose, beat them together, and put them into a double glasse, & distill a water thereof, then take yelow or red war, and spread it thin as paper on what mettell ye will, or weapon, then draw theron to the ground with a pensil of steele or other, then all to strike it ouer the drawne places with the sayde water distyld, so let it remayne xriiii. houres which water will eat on your yron or steele sufficiently. The like waye ye may doe with other sort of mettals.

Finis.

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